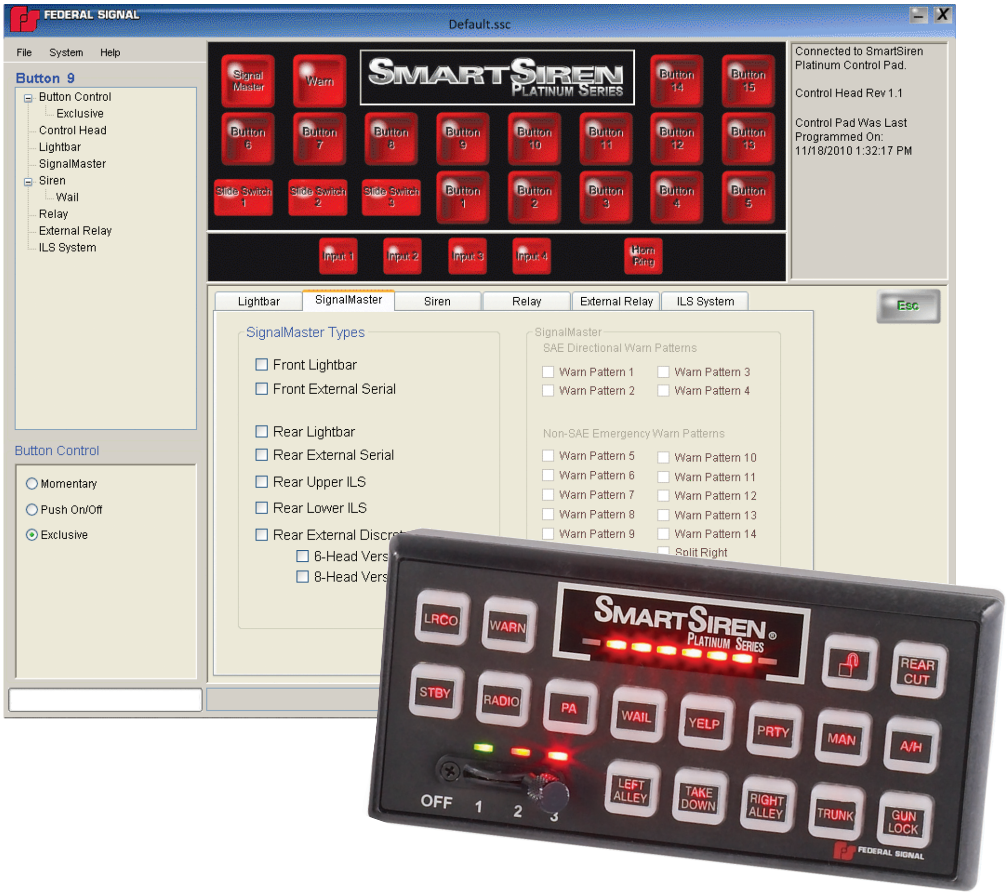
FEDERAL SIGNAL
Public Safety Systems

SMARTSIREN® PLATINUM SERIES


Connected to SmartSiren Platinum Control Pad.

Control Head Rev 1.1

Control Pad Was Last Programmed On: 11/18/2010 1:32:17 PM

FEDERAL SIGNAL
Default.ssc
File
System
Help
Button 9
Button Control
Exclusive
Control Head
Lightbar
SignalMaster
Siren
Wail
Relay
External Relay
ILS System
Button Control
○ Momentary
○ Push On/Off
● Exclusive
Signal Master
Warn
SMARTSIREN PLATINUM SERIES
Button 14
Button 15
Button 6
Button 7
Button 8
Button 9
Button 10
Button 11
Button 12
Button 13
Slide Switch 1
Slide Switch 2
Slide Switch 3
Button 1
Button 2
Button 3
Button 4
Button 5
Input 1
Input 2
Input 3
Input 4
Horn Ring
Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System
Esc
SignalMaster Types
☐ Front Lightbar
☐ Front External Serial
☐ Rear Lightbar
☐ Rear External Serial
☐ Rear Upper ILS
☐ Rear Lower ILS
☐ Rear External Discr
☐ 6-Head Vers
☐ 8-Head Vers
SignalMaster
SAE Directional Warn Patterns
☐ Warn Pattern 1
☐ Warn Pattern 2
☐ Warn Pattern 3
☐ Warn Pattern 4
Non-SAE Emergency Warn Patterns
☐ Warn Pattern 5
☐ Warn Pattern 6
☐ Warn Pattern 7
☐ Warn Pattern 8
☐ Warn Pattern 9
☐ Warn Pattern 10
☐ Warn Pattern 11
☐ Warn Pattern 12
☐ Warn Pattern 13
☐ Warn Pattern 14
☐ Split Right
LRCO
WARN
SMARTSIREN PLATINUM SERIES
REAR CUT
STBY
RADIO
PA
WAIL
YELP
PRTY
MAN
A/H
LEFT ALLEY
TAKE DOWN
RIGHT ALLEY
TRUNK
GUN LOCK
OFF
1
2
3
FEDERAL SIGNAL

Control Pad Configuration Software Manual

2562418C
REV. C 411
Printed in U.S.A.

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CHAPTER 1

Safety Messages

Safety Messages to Users of This Software

⚠ WARNING

People's lives depend on your safe installation and usage of Federal Signal products. It is important to read, understand, and follow all instructions shipped with the products. In addition, listed below are some other important safety instructions and precautions you should follow:

- The SmartSiren® Platinum enables installers to easily change the configuration and functions of the sound and light warning systems of an emergency vehicle. To avoid configuration errors, it is important to carefully read this manual before using this software.

  To help you plan your configuration, use the worksheet is on page 116.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death to you or others.

Safety Messages to Installers of Federal Signal Electronic Sirens and Sound/Light Systems

⚠ WARNING

People's lives depend on your proper installation and servicing of Federal Signal products. It is important to read and follow all instructions shipped with this product. In addition, listed below are some other important safety instructions and precautions you should follow:

Before Installation

Qualifications

- To properly install an electronic siren you must have a good understanding of automotive electrical procedures and systems, along with proficiency in the installation and service of safety warning equipment. Always refer to the vehicle's service manuals when performing equipment installations on a vehicle.

Sound Hazards

- Your hearing and the hearing of others, in or close to your emergency vehicle, could be damaged by loud sounds. This can occur from short exposures to very loud sounds, or from longer exposures to moderately loud sounds. For hearing conservation guidance, refer to federal, state, or local recommendations. OSHA Standard 1910.95 offers guidance on "Permissible Noise Exposure."

All effective sirens and horns produce loud sounds (120 dB) that may cause permanent hearing loss. Always minimize your exposure to siren sound and wear hearing protection. Do not sound the siren indoors or in enclosed areas where you and others will be exposed to the sound.

- Federal Signal siren amplifiers and speakers are designed to work together as a system. Combining a siren and speaker from different manufacturers may reduce the warning effectiveness of the siren system and may damage the components. You should verify or test your combination to make sure the system works together properly and meets federal, state and local standards or guidelines.

During Installation

- Do NOT get metal shavings inside the product. Metal shavings in the product can cause the system to fail. If drilling must be done near the unit, place an ESD-approved cover over the unit to prevent metal shavings from entering the unit. Inspect the unit after mounting to be sure there are no shavings present in or near the unit.
- Do NOT connect this system to the vehicle battery until ALL other electrical connections are made, mounting of all components is complete, and you have verified that no shorts exist. If wiring is shorted to vehicle frame, high current conductors can cause hazardous sparks resulting in electrical fires or flying molten metal.
- To avoid a battery explosion, always disconnect the negative battery cable first and reconnect it last. Avoid causing a spark when connecting near tot to the battery. The gases produced by a battery can cause a battery explosion that could result in vehicle damage and serious injury.
- Be sure the siren amplifier and speaker(s) in your installation have compatible wattage ratings.
- In order for the electronic siren to function properly, the ground connection must be made to the NEGATIVE battery terminal.
- Sound output will be severely reduced if any objects are in front of the speaker. If maximum sound output is required for your application, you should ensure that the front of the speaker is clear of any obstructions.
- Install the speaker(s) as far forward on the vehicle as possible, in a location which provides maximum signaling effectiveness and minimizes the sound reaching the vehicle's occupants. Refer to the National Institute of Justice Guide 500-00 for further information.
- Mounting the speakers behind the grille will reduce the sound output and warning effectiveness of the siren system. Before mounting speakers behind the grille, make sure the vehicle operators are trained and understand that this type of installation is less effective for warning others.
- Sound propagation and warning effectiveness will be severely reduced if the speaker is not facing forward. Carefully follow the installation instructions and always install the speaker with the projector facing forward.
- Do NOT install the speaker(s) or route the speaker wires where they may interfere with the operation of airbag sensors.
- Installation of two speakers requires wiring speakers in phase.
- Never attempt to install aftermarket equipment, which connects to the vehicle wiring, without

reviewing a vehicle wiring diagram available from the vehicle manufacturer. Insure that your installation will not affect vehicle operation and safety functions or circuits. Always check vehicle for proper operation after installation.

- Do NOT install equipment or route wiring or cord in the deployment path of an airbag.
- If a vehicle seat is temporarily removed, verify with the vehicle manufacturer if the seat needs to be recalibrated for proper airbag deployment.
- Locate the control head so the vehicle, controls, and microphone can be operated safely.
- When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged.

After Installation

- After installation, test the siren system and light system to ensure that it is operating properly.
- Test all vehicle functions, including horn operation, vehicle safety functions and vehicle light systems, to ensure proper operation. Ensure that the installation has not affected vehicle operation or changed any vehicle safety function or circuit.
- After testing is complete, provide a copy of these instructions to the instructional staff and all operating personnel.
- File these instructions in a safe place and refer to them when maintaining and/or reinstalling the product.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death.

RETAIN AND REFER TO THESE MESSAGES

CHAPTER 2

Preparing to Program the Control Pad

⚠ WARNING

PRECAUTIONS FOR CONFIGURING THE SMARTSIREN PLATINUM CONTROL PAD
Property damage, serious injury, or death may result if the SmartSiren Platinum control pad is improperly configured. Configuration is to be performed at the time of the software installation. It is NOT intended for operators to "customize" the operation of the control pad for their individual preferences. It is the installer's responsibility to determine compatibility, suitability, and ensure proper programming of the system. In addition, the person responsible for programming MUST be familiar with local codes and procedures for the safe operation of emergency-vehicle siren and lights.

System Requirements

The SmartSiren Platinum Configuration Software is supported on laptops and desktops meeting these minimum requirements:

- 1 GHz Pentium® 3 processor or compatible (32-bit and 64-bit)
- Microsoft Windows® XP with Service Pack 2, Windows Vista or Windows 7 (32-bit and 64-bit versions)
- 512 MB RAM for Windows XP
  1 GB RAM for Windows Vista and Windows 7
  Depending on your system, more memory may be required.
- 15 MB available disk space
- 1024 x 768-pixel monitor resolution, 16-bit display (32-bit recommended)
- CD-ROM drive
- One free RJ-45 Ethernet port for connection to the SmartSiren Platinum control pad with the included Ethernet cable (Federal Signal part number 1751532)

This chapter explains how to install the SmartSiren Platinum Configuration Software on your computer. It also explains how to establish an IP address between the control pad and your computer in Windows XP, Windows Vista and Windows 7. A local area connection (LAN) is not needed because the SmartSiren Platinum Configuration software creates a network between your computer and the control pad. Finally, the chapter walks you through the process of setting up the control pad for programming. To wire the control pad for 12 Vdc power, which is needed for programming, refer to the *SmartSiren Platinum Installation, Maintenance, and Service* manual, document number 2562502 or the *Quick Connect Guide*, document number 2562417.

Before you begin programming the SmartSiren Platinum control pad, read this manual to understand the programming process and decide how you want the control pad to operate. To help you plan your configuration, a worksheet provided in the appendix on page 116. After you finish programming the control pad, you can also print a copy of each configuration window. See "Printing a Record of Your Configuration File" on page 99.

Installing the Software

To install the control pad configuration software:

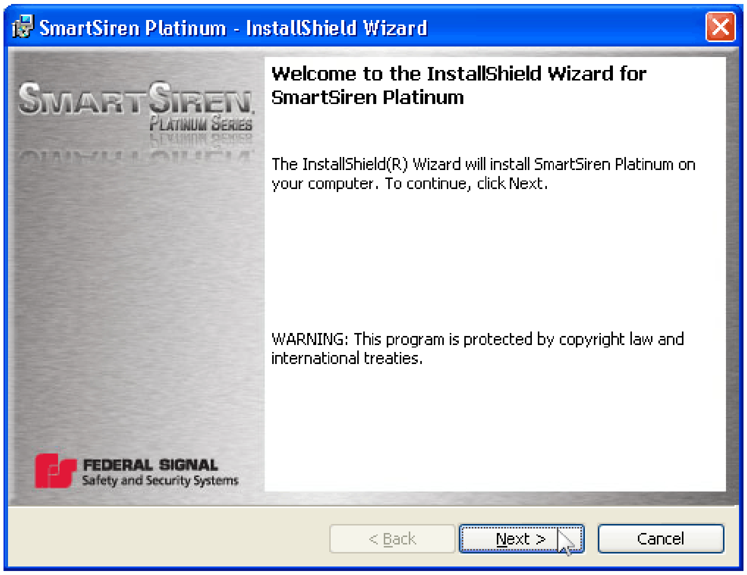
1. Close all applications that are running on your computer.

Uninstall the SmartSiren Platinum Configuration Software

If you have a version of the SmartSiren Platinum software installed on your computer, uninstall the software before installing the latest version by selecting **Start > Control Panel > Add or Remove Programs > SmartSiren Platinum 3000 > Remove**.

2. Insert the SmartSiren Platinum Series CD into your CD or DVD drive.

3. When the InstallShield® Wizard appears, click **Next** to continue. Follow the on-screen instructions to complete the installation. If the InstallShield Wizard does not appear automatically, navigate to the CD-ROM drive and double-click **setup.exe**. If you are using Windows Vista, right-click **setup.exe** and choose **Run as Administrator.**



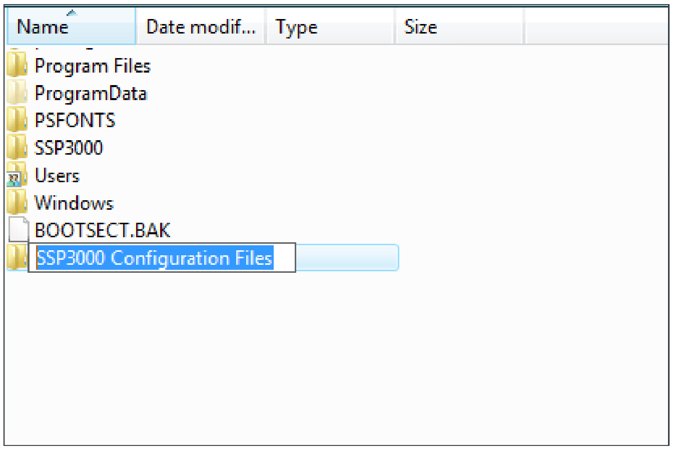
SmartSiren Platinum - InstallShield Wizard

Welcome to the InstallShield Wizard for SmartSiren Platinum

The InstallShield(R) Wizard will install SmartSiren Platinum on your computer. To continue, click Next.

WARNING: This program is protected by copyright law and international treaties.

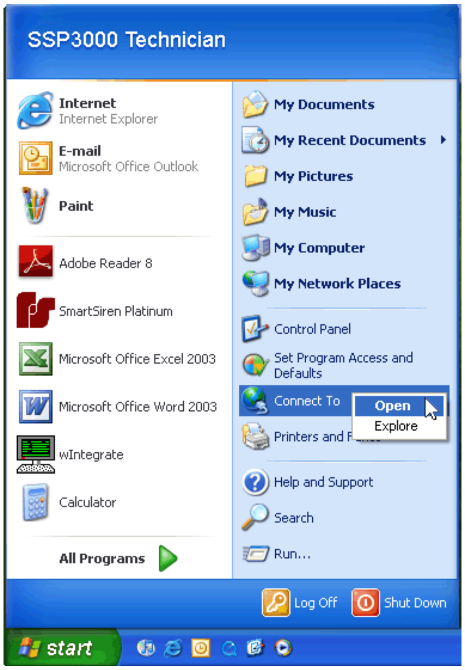
4. Create and name a folder on your hard drive in which to store your configuration files.


Name
Date modif...
Type
Size
Program Files
ProgramData
PSFONTS
SSP3000
Users
Windows
BOOTSECT.BAK
SSP3000 Configuration Files

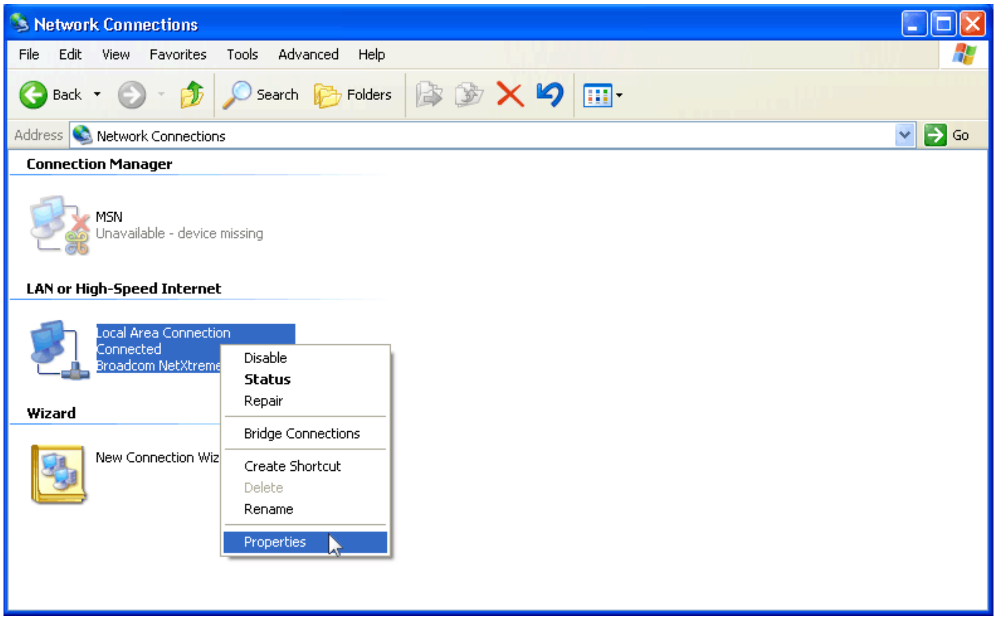
Connecting the Control Pad to Your Computer in Windows XP

This section explains how to establish an IP address between the control pad and your computer in Windows XP after you have installed the SmartSiren Platinum Configuration Software. The network you create by following the steps in this section enables you to program the control pad.

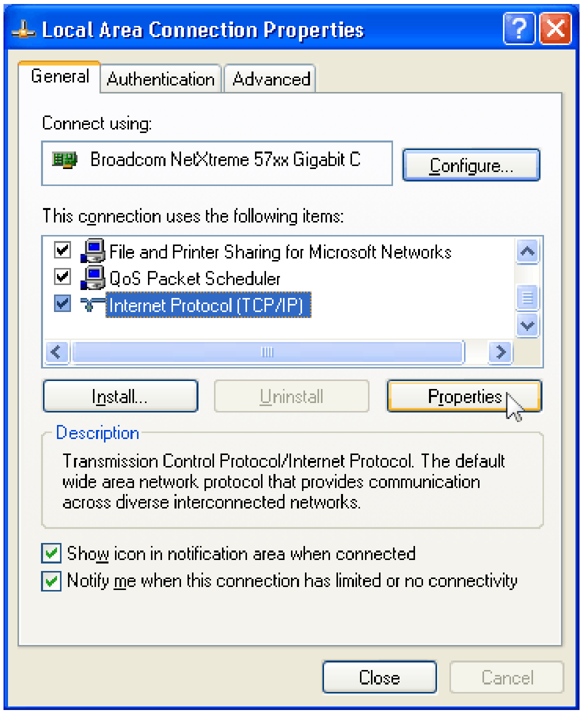
1. In the **Start** menu click **Connect to** and select **Open**.


SSP3000 Technician
Internet
Internet Explorer
E-mail
Microsoft Office Outlook
Paint
Adobe Reader 8
SmartSiren Platinum
Microsoft Office Excel 2003
Microsoft Office Word 2003
wIntegrate
Calculator
All Programs
My Documents
My Recent Documents
My Pictures
My Music
My Computer
My Network Places
Control Panel
Set Program Access and Defaults
Connect To
Open
Explore
Printers and F
Help and Support
Search
Run...
Log Off
Shut Down
start

2. Right-click **Local Area Connection** and select **Properties**.


Network Connections
File Edit View Favorites Tools Advanced Help
Back
Search
Folders
Address Network Connections
Go
Connection Manager
MSN
Unavailable - device missing
LAN or High-Speed Internet
Local Area Connection
Connected
Broadcom NetXtreme
Wizard
New Connection Wiz
Disable
Status
Repair
Bridge Connections
Create Shortcut
Delete
Rename
Properties

3. Select **Internet Protocol (TCP/IP)** and click **Properties**.


Local Area Connection Properties
General
Authentication
Advanced
Configure...
Install...
Uninstall
Properties
Description
Close
Cancel

Connect using:

Broadcom NetXtreme 57xx Gigabit C

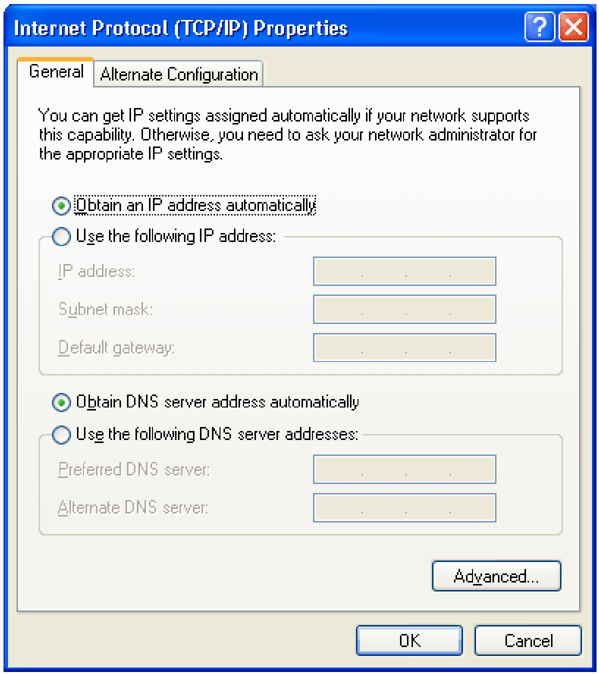
This connection uses the following items:

- ☑ File and Printer Sharing for Microsoft Networks
- ☑ QoS Packet Scheduler
- ☑ Internet Protocol (TCP/IP)

Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.

- ☑ Show icon in notification area when connected
- ☑ Notify me when this connection has limited or no connectivity

4. Select **Obtain an IP address automatically** and **Obtain DNS Server Address Automatically**. Click **OK**.



Internet Protocol (TCP/IP) Properties

General
Alternate Configuration

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

● Obtain an IP address automatically

○ Use the following IP address:

IP address:

Subnet mask:

Default gateway:

● Obtain DNS server address automatically

○ Use the following DNS server addresses:

Preferred DNS server:

Alternate DNS server:

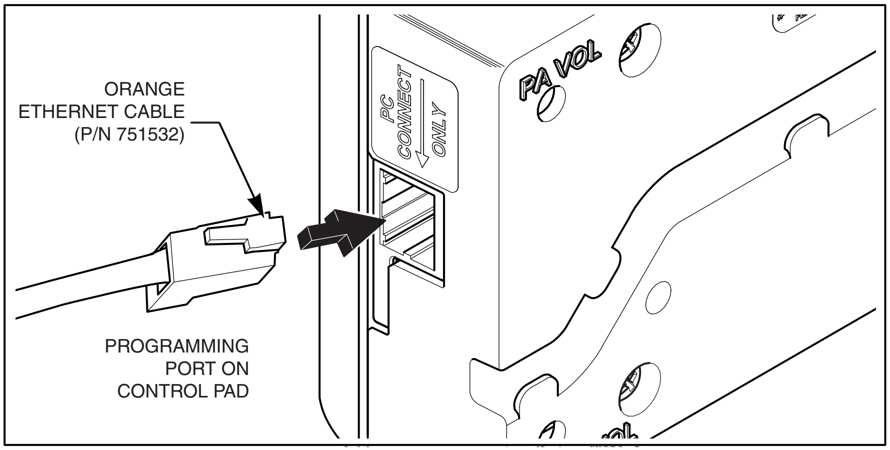
Advanced...
OK
Cancel

NOTICE

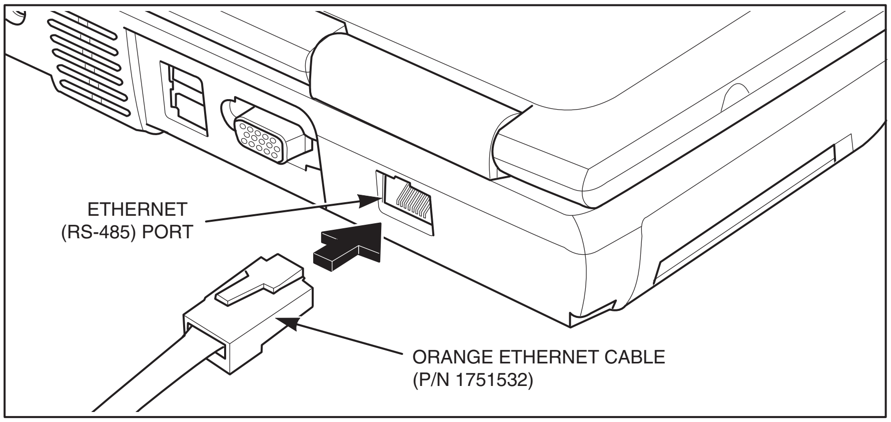
CONTROL PAD DAMAGE

To avoid damage to the control pad, do not plug the black Federal Signal serial cable into the computer programming port on the control pad labeled PC CONNECT ONLY.

5. Plug the connector of the orange Ethernet crossover cable into the computer programming port on the side of the control pad.


ORANGE
ETHERNET CABLE
(P/N 751532)
PROGRAMMING
PORT ON
CONTROL PAD
PC
CONNECT
ONLY
PA VOL

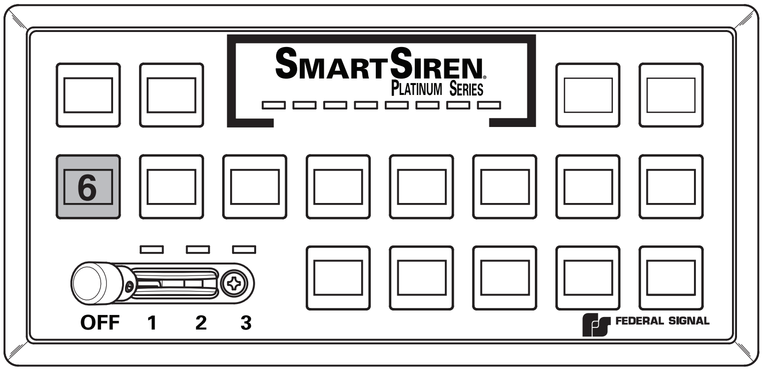
6. Plug the other end of the cable into the RJ-485 Ethernet connector on your computer.


ETHERNET
(RS-485) PORT
ORANGE ETHERNET CABLE
(P/N 1751532)

> **The control pad must be connected to 12 Vdc**
>
> To establish the Ethernet connection in the next step, the control pad must be wired for 12 Vdc power. For connection instructions, refer to the *SmartSiren Platinum Installation, Maintenance, and Service* manual, document number 2562502 or the *Quick Connect Guide*, document number 2562417.

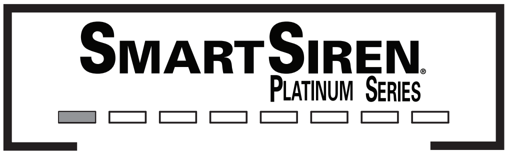
7. Set up the control pad for programming by putting it into Program Mode:

a) Press and hold **Button 6** while powering up the control pad.

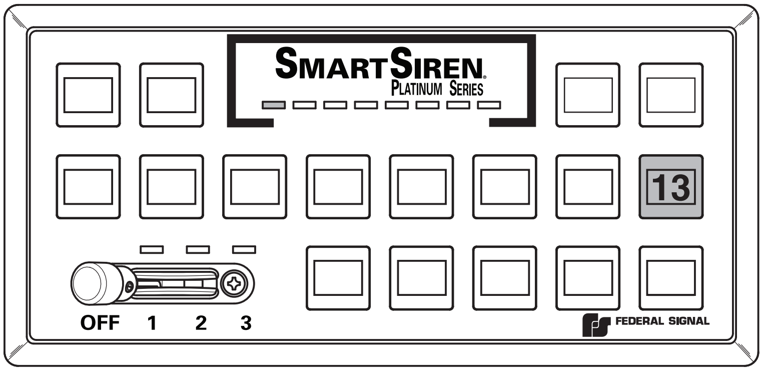

SMARTSIREN
PLATINUM SERIES
6
OFF
1
2
3
FEDERAL SIGNAL

b) During the long beep, release **Button 6**.

c) Press **Button 6** again. The first LED on the control pad lights to indicate you are in Programming Mode.


SMARTSIREN
PLATINUM SERIES

d) Press **Button 13**. In approximately 30 seconds the first LED blinks and the control pad beeps to indicate that your Ethernet port is on.

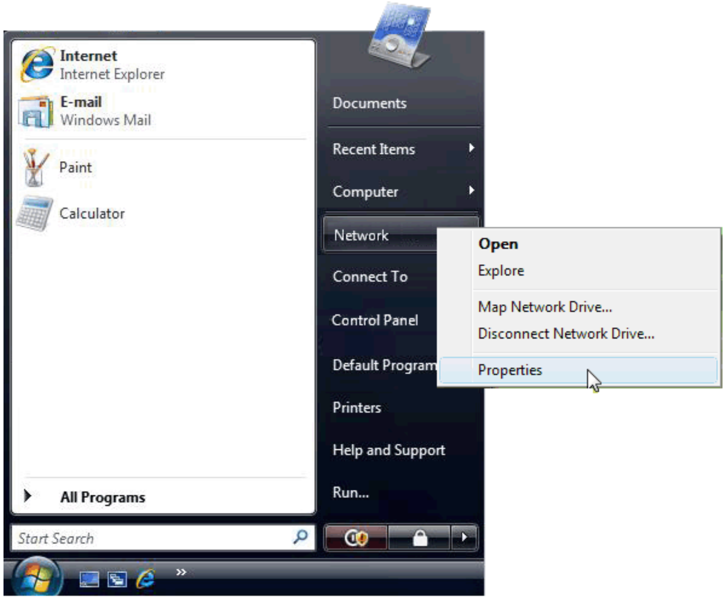

SMARTSIREN
PLATINUM SERIES
13
OFF
1
2
3
FEDERAL SIGNAL

If you cannot connect to the Convergence Network, refer to the troubleshooting instructions in the appendix on page 103.

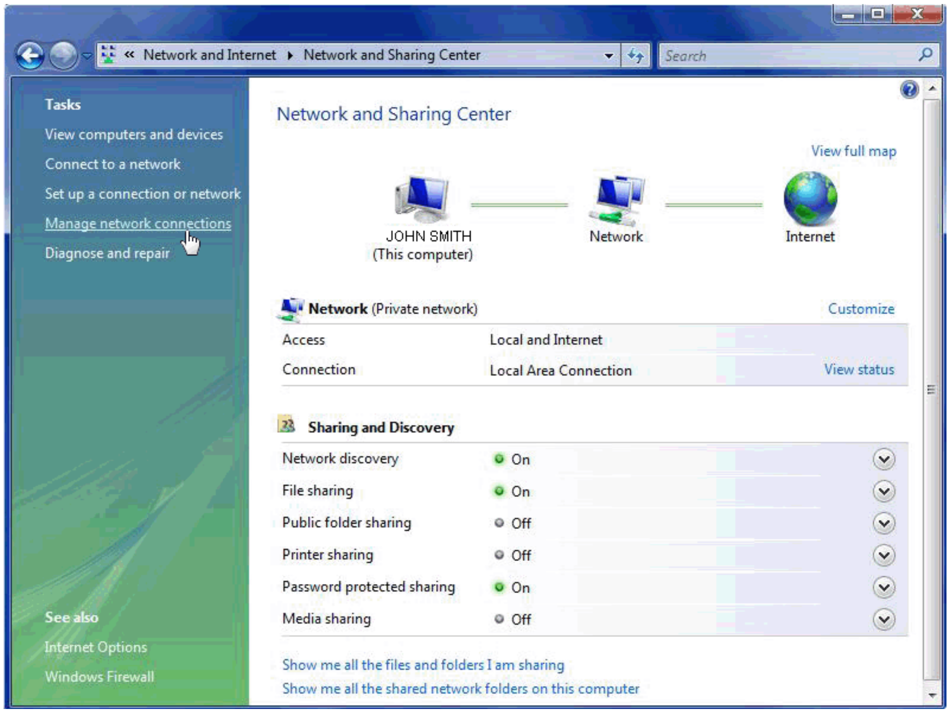
Connecting the Control Pad to Your Computer in Windows Vista/7

This section explains how to establish an IP address between the control pad and your computer in Windows Vista and Windows 7 after you have installed the SmartSiren Platinum Configuration Software. The network you create by following the steps in this section enables you to program the control pad.

1. In the **Start** menu, right-click **Network** and select **Properties**.


Internet
Internet Explorer
E-mail
Windows Mail
Paint
Calculator
All Programs
Start Search
Documents
Recent Items
Computer
Network
Connect To
Control Panel
Default Programs
Printers
Help and Support
Run...
Open
Explore
Map Network Drive...
Disconnect Network Drive...
Properties

2. In the **Network and Sharing Center**, click the link **Manage Network Connections**.


« Network and Internet ▸ Network and Sharing Center
Search
Tasks
View computers and devices
Connect to a network
Set up a connection or network
Manage network connections
Diagnose and repair
See also
Internet Options
Windows Firewall
Network and Sharing Center
View full map
JOHN SMITH
(This computer)
Network
Internet
Customize
View status
Show me all the files and folders I am sharing
Show me all the shared network folders on this computer

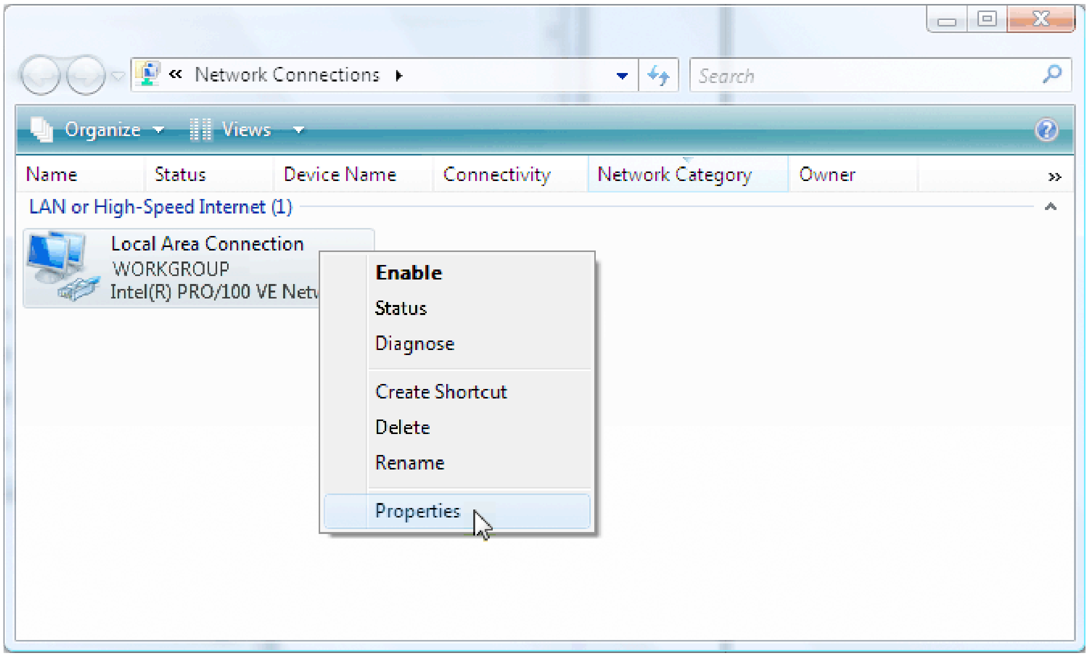
Network (Private network)

Access	Local and Internet
Connection	Local Area Connection

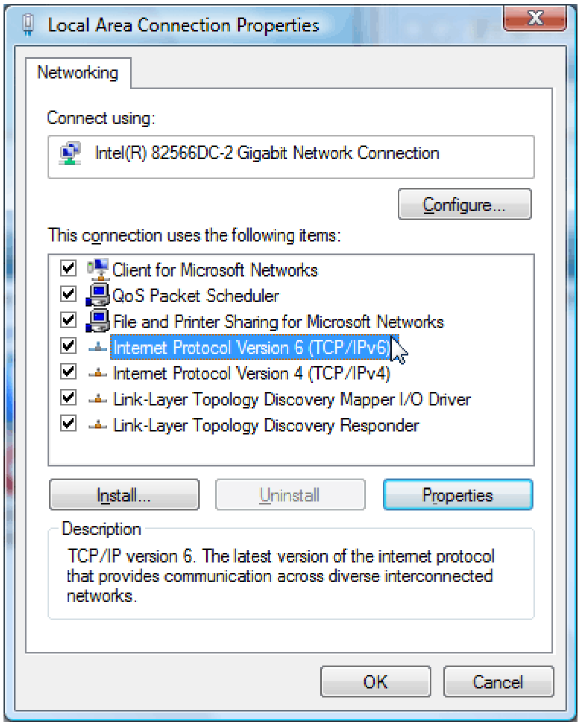
Sharing and Discovery

Network discovery	● On
File sharing	● On
Public folder sharing	○ Off
Printer sharing	○ Off
Password protected sharing	● On
Media sharing	○ Off

3. Right-click your **Local Area Connection** and select **Properties**.


« Network Connections ▸
Search
Organize
Views
Name
Status
Device Name
Connectivity
Network Category
Owner
LAN or High-Speed Internet (1)
Local Area Connection
WORKGROUP
Intel(R) PRO/100 VE Netv
Enable
Status
Diagnose
Create Shortcut
Delete
Rename
Properties

4. Select **Internet Protocol Version 6** and click **Properties**.

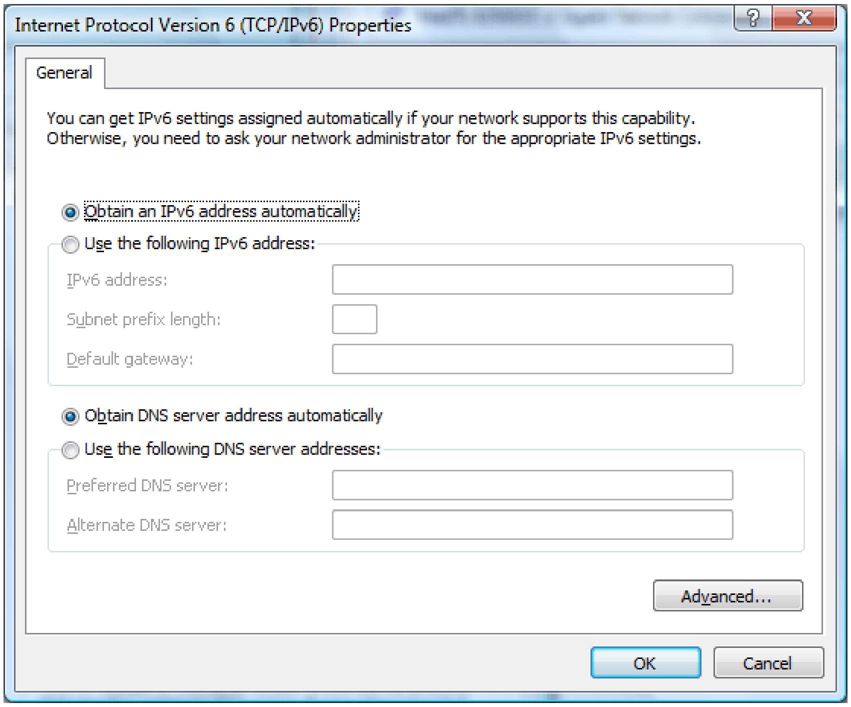

Local Area Connection Properties

Connect using:
Intel(R) 82566DC-2 Gigabit Network Connection

This connection uses the following items:
- ☑ Client for Microsoft Networks
- ☑ QoS Packet Scheduler
- ☑ File and Printer Sharing for Microsoft Networks
- ☑ Internet Protocol Version 6 (TCP/IPv6)
- ☑ Internet Protocol Version 4 (TCP/IPv4)
- ☑ Link-Layer Topology Discovery Mapper I/O Driver
- ☑ Link-Layer Topology Discovery Responder

Description
TCP/IP version 6. The latest version of the internet protocol that provides communication across diverse interconnected networks.

5. Select **Obtain an IPv6 address automatically** and click **OK**.


Internet Protocol Version 6 (TCP/IPv6) Properties

You can get IPv6 settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IPv6 settings.

● Obtain an IPv6 address automatically
○ Use the following IPv6 address:
IPv6 address:
Subnet prefix length:
Default gateway:

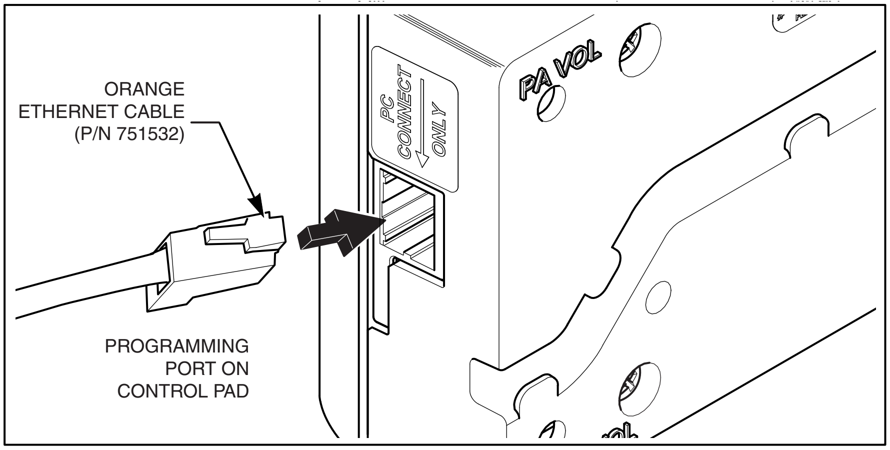
● Obtain DNS server address automatically
○ Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:

NOTICE

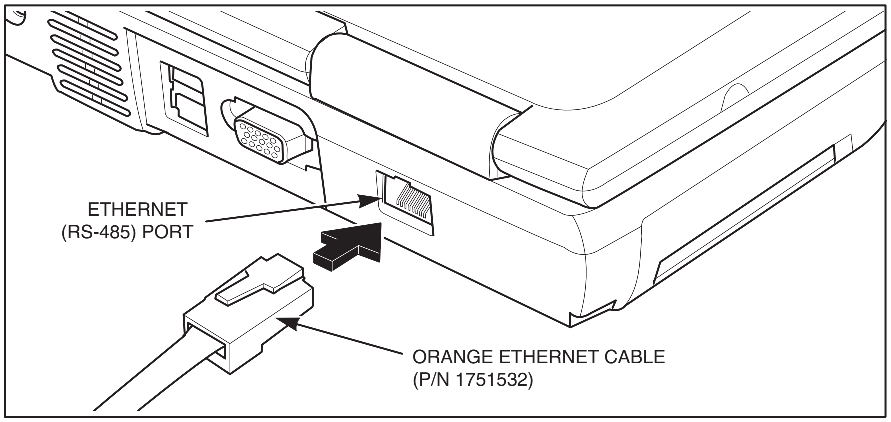
CONTROL PAD DAMAGE

To avoid damage to the control pad, do not plug the Federal Signal serial cable into the computer programming port on the control pad labeled PC CONNECT ONLY.

6. Plug the connector of the orange Ethernet crossover cable into the computer programming port on the side of the control pad.


ORANGE
ETHERNET CABLE
(P/N 751532)
PROGRAMMING
PORT ON
CONTROL PAD
PC
CONNECT
ONLY
PA VOL

7. Plug the other end of the cable into the RJ-485 Ethernet connector on your computer.


ETHERNET
(RS-485) PORT
ORANGE ETHERNET CABLE
(P/N 1751532)

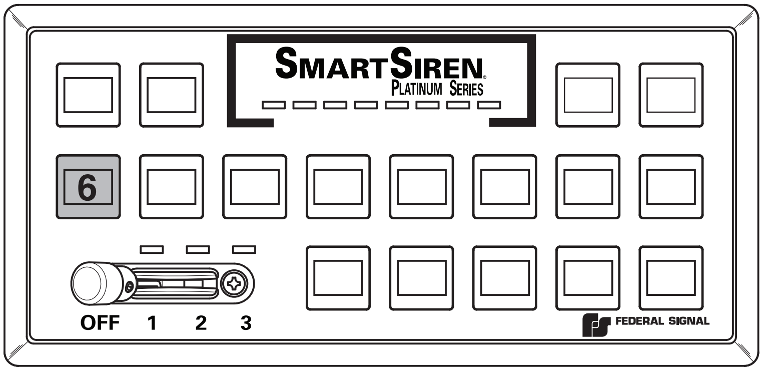
NOTE

The control pad must be connected to 12 Vdc

To establish the Ethernet connection in the next step, the control pad must be wired for 12 Vdc power. For connection instructions, refer to the *SmartSiren Platinum Installation, Maintenance, and Service* manual, document number 2562502 or the *Quick Connect Guide*, document number 2562417.

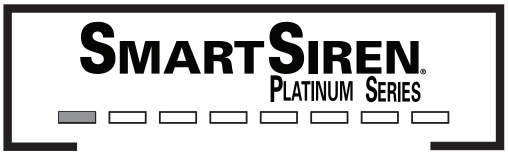
8. Set up the control pad for programming by putting it into Program Mode:

a) Press and hold **Button 6** while powering up the control pad.

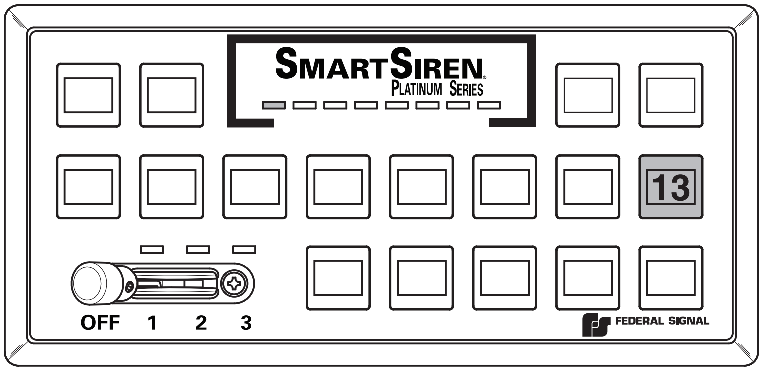

SMARTSIREN
PLATINUM SERIES
6
OFF
1
2
3
FEDERAL SIGNAL

b) During the long beep, release **Button 6**.

c) Press **Button 6** again. The first LED on the control pad lights to indicate you are in Programming Mode.


SMARTSIREN
PLATINUM SERIES

d) Press **Button 13**. In approximately 30 seconds the first LED blinks and the control pad beeps to indicate that the Ethernet port is on.


SMARTSIREN
PLATINUM SERIES
13
OFF
1
2
3
FEDERAL SIGNAL

If you cannot connect to the Convergence Network, refer to the troubleshooting instructions in the appendix on page 108.

CHAPTER 3

Exploring the Interface

An Overview of the SmartSiren Platinum Configuration Software

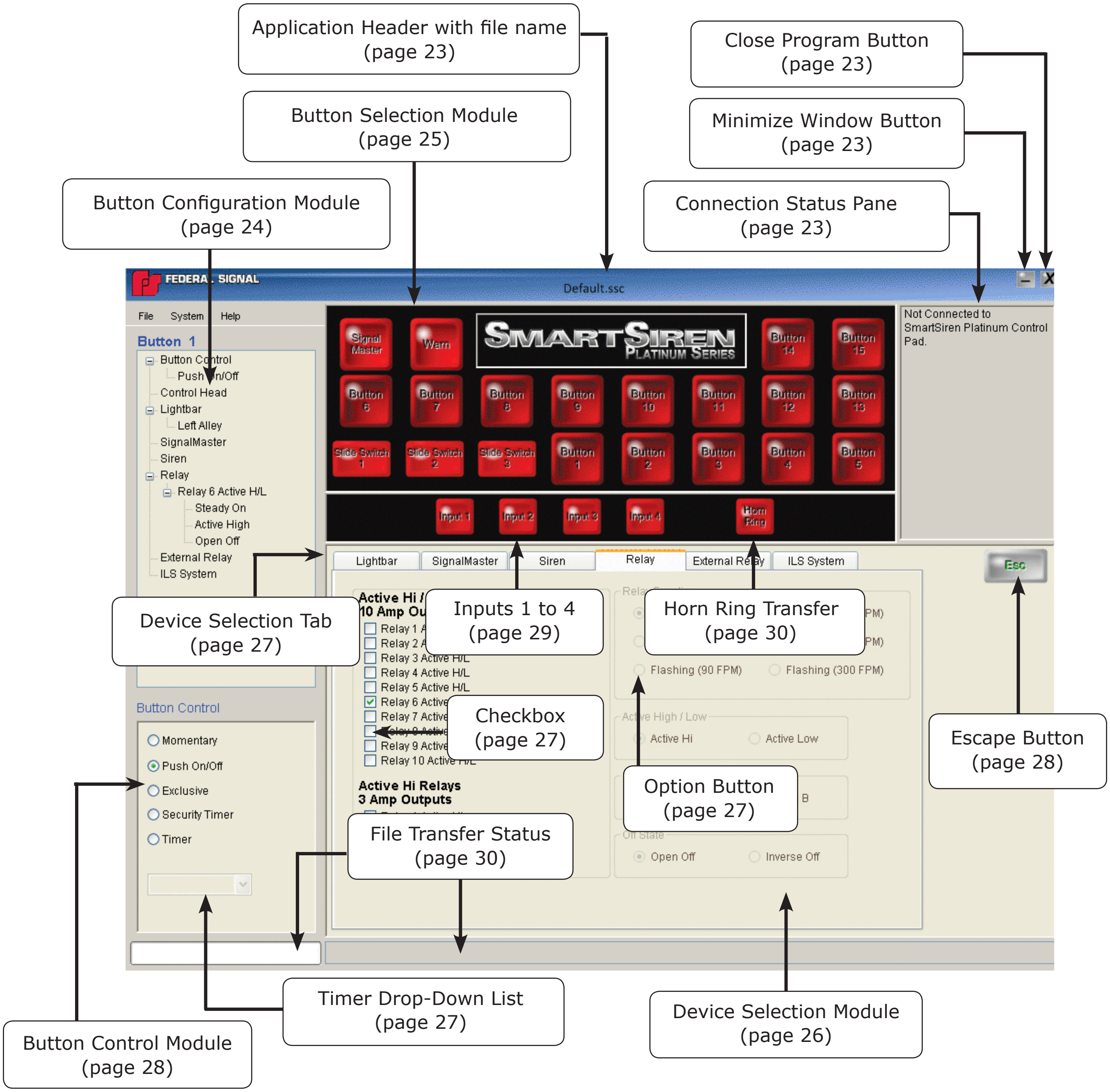
The SmartSiren Platinum 3000 Configuration Software is a Microsoft Windows-based application that enables you to configure how the SmartSiren Platinum control pad and SmartSiren Platinum amplifier operate the Federal Signal warning devices installed in an emergency vehicle. The serial and non-serial controlled warning devices operate as part of a system that communicates though the Federal Signal in-vehicle Convergence™ Network. The devices include:

- SmartSiren Platinum Siren Amplifier/Relay Module
- Model 660100 RS485 Relay Module/Two Channel Flasher
- Lightbars and SignalMaster™ directional/warning lights
- Exterior and interior perimeter warning lights
- Siren, PA, radio, horn-ring transfer
- Automatically activated and timed switches and relays

With the control pad serving as the command center, the SmartSiren Platinum Siren Amplifier/Relay Module acts as the communications hub of the Convergence Network. With solid-state relays and LEDs that light to indicate signal transmission between circuits, the siren amplifier does more than amplify sound. It coordinates the operation and communication of all devices on the network according to the configuration file you created using the configuration software.

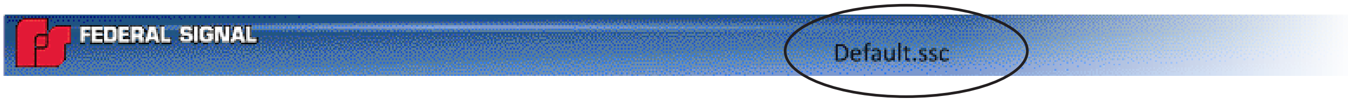
The configuration software displays a GUI (graphical user interface) version of the SmartSiren Platinum control pad. The interface also includes programmable button-control versions of the four input relays and horn ring circuit in the SmartSiren Platinum Siren Amplifier. The software enables you to easily choose what functions the buttons control and how devices and buttons operate without having to determine logic or perform complicated rewiring.

The application stores the configuration information in a file on your hard drive in a location of your choice. You can create and name additional configuration files for uploading to the same or other SmartSiren Platinum control pads. For easy reference, you can also print the screen version of your system configuration. The elements that make up the interface are illustrated below and described in the next pages.


Application Header with file name (page 23)
Close Program Button (page 23)
Button Selection Module (page 25)
Minimize Window Button (page 23)
Button Configuration Module (page 24)
Connection Status Pane (page 23)
FEDERAL SIGNAL
Default.ssc
File
System
Help
Button 1
Button Control
Push On/Off
Control Head
Lightbar
Left Alley
SignalMaster
Siren
Relay
Relay 6 Active H/L
Steady On
Active High
Open Off
External Relay
ILS System
Signal Master
Warn
SMARTSIREN PLATINUM SERIES
Button 14
Button 15
Button 6
Button 7
Button 8
Button 9
Button 10
Button 11
Button 12
Button 13
Slide Switch 1
Slide Switch 2
Slide Switch 3
Button 1
Button 2
Button 3
Button 4
Button 5
Input 1
Input 2
Input 3
Input 4
Horn Ring
Not Connected to SmartSiren Platinum Control Pad.
Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System
Esc
Active Hi / 10 Amp Outputs
☐ Relay 1 Active H/L
☐ Relay 2 Active H/L
☐ Relay 3 Active H/L
☐ Relay 4 Active H/L
☐ Relay 5 Active H/L
☑ Relay 6 Active H/L
☐ Relay 7 Active H/L
☐ Relay 8 Active H/L
☐ Relay 9 Active H/L
☐ Relay 10 Active H/L
Active Hi Relays 3 Amp Outputs
Relay Function
○ Flashing (90 FPM)
○ Flashing (300 FPM)
Active High / Low
● Active Hi
○ Active Low
Off State
● Open Off
○ Inverse Off
Button Control
○ Momentary
● Push On/Off
○ Exclusive
○ Security Timer
○ Timer
Device Selection Tab (page 27)
Inputs 1 to 4 (page 29)
Horn Ring Transfer (page 30)
Checkbox (page 27)
Escape Button (page 28)
Option Button (page 27)
File Transfer Status (page 30)
Timer Drop-Down List (page 27)
Device Selection Module (page 26)
Button Control Module (page 28)

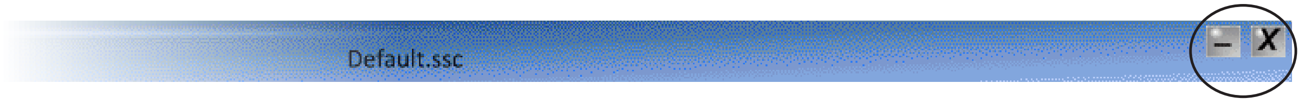
Application Header

The application header at the top of the window displays the file name for the file you open The example below displays the name of the default configuration file (Default.scc) included with the software that you will modify for your requirements.

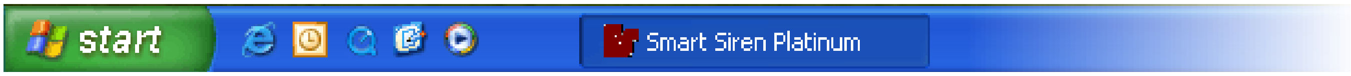


Minimize Window (–) Button and Close Program (*X*) Buttons

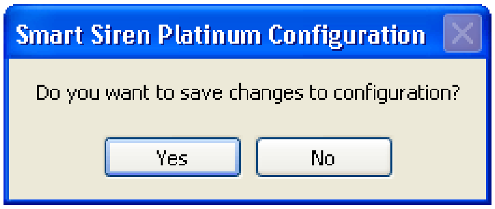
One of the first things you will recognize is the **Minimize Window** button and the **Close Program** button in the upper right corner of the interface.



The **Minimize** (**–**) button works the same way as it does in other Microsoft Windows-based applications. By clicking the button, you shrink the window to an icon on the taskbar. This enables you to tuck away the application without closing it. When you are ready to work with the application, you can quickly access it by clicking the icon.

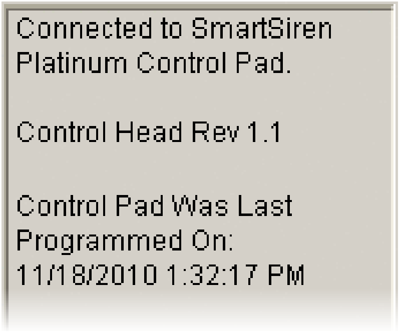


The **Close Program** (***X***) button works the same as its counterpart in other Windows applications. When you are ready to close the application, click the button. Click **Yes** or **No** in the pop-up box in response to the question "Do you want to save changes to configuration?" In the dialog box that appears in response **Yes**, select a folder for the configuration file, type a new file name, then click **Save**.



Do you want to save changes to configuration?

Connection Status Pane



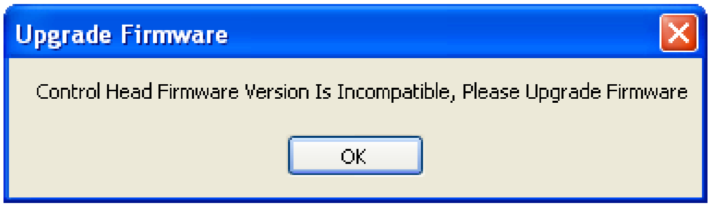
Connected to SmartSiren Platinum Control Pad.

Control Head Rev 1.1

Control Pad Was Last Programmed On:
11/18/2010 1:32:17 PM

The **Connection Status Pane** in the upper right corner is the first pane to check when using the application. It tells you if the control pad is connected to the Convergence Network. It also displays the firmware version of the control head, and the date and time of the last saved configuration file. The control pad, however, must be connected and powered up to read in a configuration file from your computer. For information on the system's wiring, refer to the *SmartSiren Platinum Installation, Maintenance, and Service* manual, document number 2562502 or the *Quick Connect Guide*, document number 2562417.

If the control head firmware is incompatible with the version of the configuration software that you are using, an error message appears.



Upgrade Firmware

Control Head Firmware Version Is Incompatible, Please Upgrade Firmware

For customer support, please call:

Service Department
Federal Signal Corporation
Phone: 1-800-433-9132
Fax: 1-800-343-9706
Email: empserviceinfo@fedsig.com
7 a.m. to 5 p.m., Monday through Friday (CT)

The Four Programming Modules

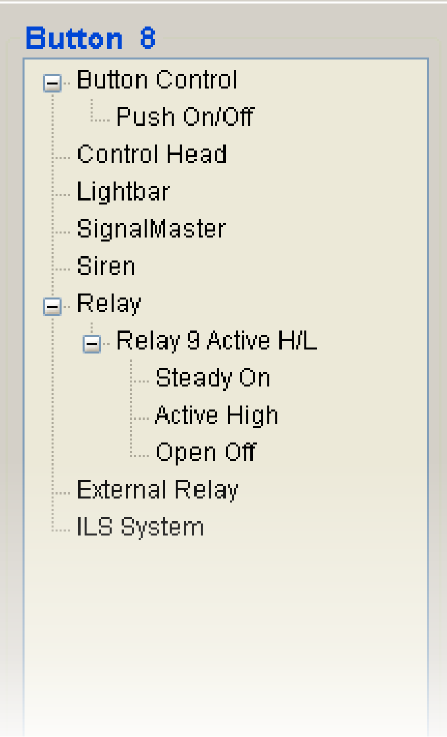
The SmartSiren Platinum is contained within an integrated workspace, which means each programming module is displayed within a larger window. The four programming modules are: the B**utton Configuration Module**, the **Button Selection Module**, the **Device Selection Module**, and the **Button Control Module**. The default configurations are listed in the chapters for each **Device Assignment Pane**. In addition, the appendix has a table on page 116 of the default configurations for every button.

The Button Configuration Module

The **Button Configuration Module** displays all devices available in the Convergence Network, It also displays functions assigned to the devices that are controlled the button shown in the header. The **Button Configuration Module** also displays device assignments for the four **Input** circuits and the **Horn Ring Transfer** circuit as well.

The information is arranged in a directory tree. To expand information about a device, click the plus sign (+) next to it. To collapse the category, click the negative sign (–).

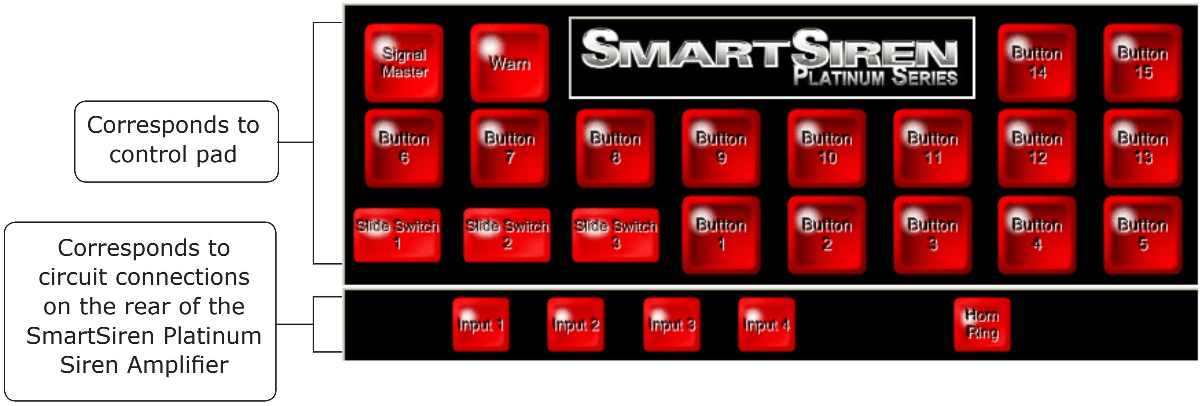
If the tree extends beyond the bottom of the module, a scroll bar appears to the right. Click and hold the bar, then drag it up and down to see the entire tree.



The illustration on the right displays the default settings for **Button 8**. The button is configured to act as a **Push On/ Off** switch. When the button is pressed, the perimeter lights connected to **Relay 8** stay on without flashing (**Steady On**). The circuit is supplying +12 Vdc during its "on" state (**Active High**) and is open during its "off" state (**Open Off**).

The Button Selection Module

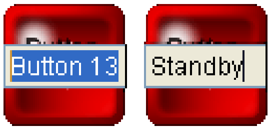
The module is the software version of the 17 buttons and three slide-switch positions on the control pad. It also has “virtual” buttons representing the four **Input** circuits and the **Horn Ring Transfer** circuits available in the SmartSiren Platinum Siren Amplifier. The **Button Selection Module** is the starting point; you must first click a button to make the other options in the **Device Selection Module** available for selection.


Signal Master
Warn
SMARTSIREN PLATINUM SERIES
Button 14
Button 15
Button 6
Button 7
Button 8
Button 9
Button 10
Button 11
Button 12
Button 13
Slide Switch 1
Slide Switch 2
Slide Switch 3
Button 1
Button 2
Button 3
Button 4
Button 5
Input 1
Input 2
Input 3
Input 4
Horn Ring

Corresponds to control pad

Corresponds to circuit connections on the rear of the SmartSiren Platinum Siren Amplifier

When you assign a function to a button in the **Device Selection Module**, the name of the button and the assigned function are displayed in the directory tree in the **Button Configuration Module** (page 24). Functions include devices, such as lightbars and sirens, and the way the devices operate. You can assign up to ten functions to all buttons except **Slide Switch Position 3**, which has a limit of 20 functions.


Button 13
Standby

You can easily change the name of any button by right-clicking it, dragging the cursor over the default name to highlight it, and typing a new name. The number of characters, including spaces, are limited by the size and shape of the buttons. Specifically, the **SignalMaster** and **Warn** buttons, and **Buttons 1–15,** are limited to 40 characters. The **Slide Switch** buttons are limited to 44 characters, and the **Input** buttons are limited to 24 characters.

Although most buttons work the same, some buttons are dedicated to certain devices or have additional options. These buttons are the **SignalMaster** and **Warn** buttons, the **Slide Switch** buttons, and buttons that also function as timers, which are described in the next three sections. Button control for these unique buttons are discussed further in “The Button Control Module” on page 28. See also “Button Control Capabilities” on page 31.

SignalMaster and Warn Buttons

You can assign a device to any of the buttons except the **SignalMaster** and **Warn** buttons in the upper left corner. The buttons are dedicated to SignalMaster-equipped lightbars or standalone SignalMaster lightbars. The **SignalMaster Pane** in the **Device Selection Module** has options assignable to these buttons. For more information, see “Chapter 5: Configuring the SignalMaster” on page 44.

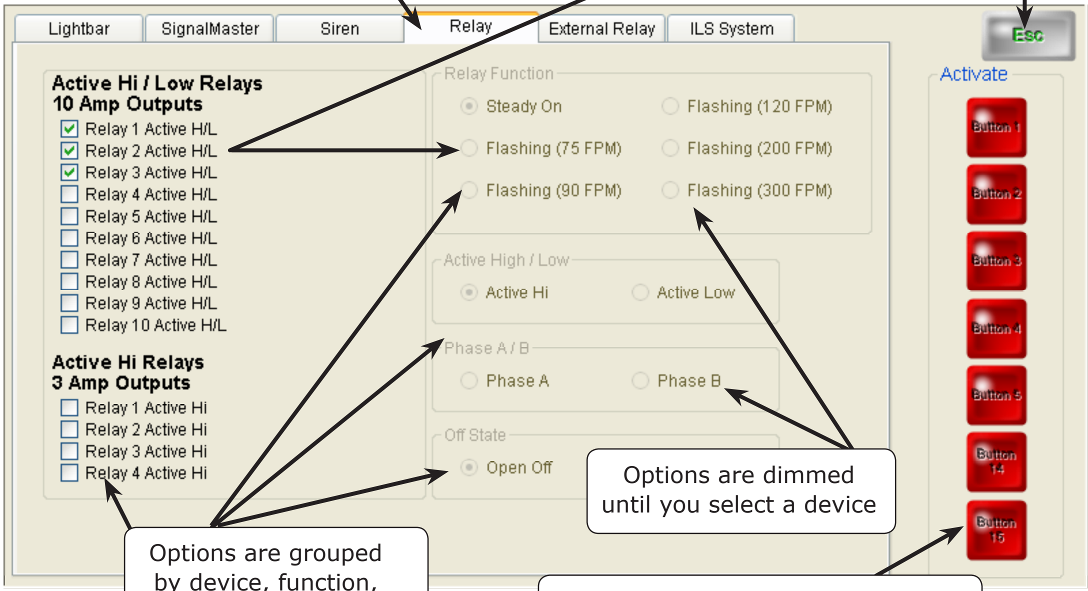
Slide Switch Buttons

The three **Slide Switch** buttons correspond to the slide switch positions on the control pad. Each position acts as a momentary switch that turns on and off devices assigned to them. To program the slide switch to operate as a progressive switch, assign the same functions from the previous slide switch position to the next position, then add new functions. Up to ten functions can be assigned directly to **Slide Switch 1** and **2**, and up to twenty to **Slide Switch 3**.

In addition, **Buttons 1** to **5** and **Buttons 14** and **15** can be programmed to activate when the operator puts the slide switch into a position linked to one or more of these buttons. This feature enables the operator to turn functions on and off or skip steps in selecting a step-through SignalMaster warn or directional pattern without changing the position of the slide switch. Linking a button also extends the number of assignable functions available to a slide switch button with the additional 10 functions of the linked button. The pane below shows the buttons available for activation when a slide switch button is selected.

The Device Selection Module

The **Device Selection Module** is where you assign devices and functions to the buttons in the **Button Selection Module**. The devices, identified by tabs at the top of their panes are: **Lightbar**, **SignalMaster**, **Siren**, **Relay**, **External Relay,** and **ILS System**. The functions determine how and what they turn on, operate, and turn off. By default, each time you launch the application, it opens with the **Lightbar** pane. The pane that is ready for configuration moves in front of the other panes. The lightbar pane and the others behind it, however, are not active, and therefore not configurable, until you click a button in the **Button Selection Module**.



Active Hi / Low Relays
10 Amp Outputs
☑ Relay 1 Active H/L
☑ Relay 2 Active H/L
☑ Relay 3 Active H/L
☐ Relay 4 Active H/L
☐ Relay 5 Active H/L
☐ Relay 6 Active H/L
☐ Relay 7 Active H/L
☐ Relay 8 Active H/L
☐ Relay 9 Active H/L
☐ Relay 10 Active H/L

Active Hi Relays
3 Amp Outputs
☐ Relay 1 Active Hi
☐ Relay 2 Active Hi
☐ Relay 3 Active Hi
☐ Relay 4 Active Hi

Relay Function
● Steady On
○ Flashing (120 FPM)
○ Flashing (75 FPM)
○ Flashing (200 FPM)
○ Flashing (90 FPM)
○ Flashing (300 FPM)

Active High / Low
● Active Hi
○ Active Low

Phase A / B
○ Phase A
○ Phase B

Off State
● Open Off

Select a tab to access a device. The tab is lighter in color to indicate that the pane available for configuration. The orange bar is added in Windows XP.

The flow of the selection process is right to left. Click a box or option button to select or deselect.

Esc is green to indicate the pane is active and can accept your selections

Options are dimmed until you select a device

Options are grouped by device, function, and similarity.

Buttons for activation by a slide switch position appear when a slide switch button is selected.

Device Selection Tabs

To select a pane in background, click the **Device Selection Tab** on the top of the pane. The tab of an active pane is lighter than the others. In addition, in Windows XP the tab is topped with an orange bar

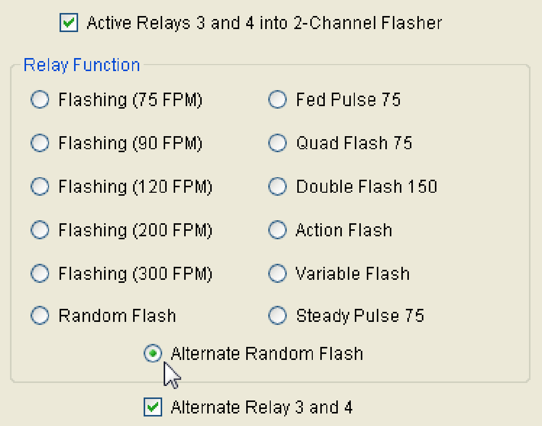
To help you find what you need, devices and their functions are grouped by similarity. For example, in the **SignalMaster** Pane lightbar types, SAE and non-SAE warn patterns, and speed and dimming options are grouped within boxes. A gap also separates **Front** and **Rear SignalMaster** types.

In general, the direction in which you select items is from devices on the right of the pane to functions on the left. Options that are dimmed and disabled become available as you select the devices that use them.

In some panes a device or option is unavailable because it is already assigned. To prevent duplication, for example, a siren tone that is assigned to a button in the **Siren** Pane remains unavailable until you reassign it to a new button.

Option Buttons and Checkboxes

Most devices and functions are selected by clicking the empty **option button** or **checkbox** next to them to insert a dot or a checkmark. To de-select them, click the selected option button or checkbox to clear it.



☑ Active Relays 3 and 4 into 2-Channel Flasher

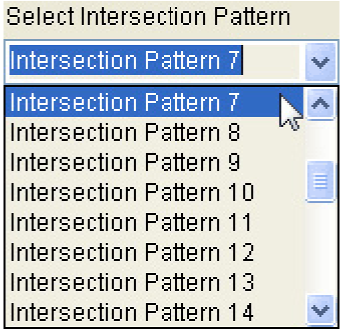
Relay Function

○ Flashing (75 FPM)
○ Flashing (90 FPM)
○ Flashing (120 FPM)
○ Flashing (200 FPM)
○ Flashing (300 FPM)
○ Random Flash
○ Fed Pulse 75
○ Quad Flash 75
○ Double Flash 150
○ Action Flash
○ Variable Flash
○ Steady Pulse 75
● Alternate Random Flash

☑ Alternate Relay 3 and 4

Drop-Down Lists

Drop down lists are for functions that have many choices, such as flash patterns and timer settings. To select a function from a drop-down list, click the arrow next to the list box and move your cursor over a function in the drop-down list to highlight it. The box displays your selection.

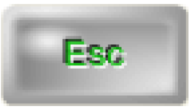


Select Intersection Pattern

Intersection Pattern 7

Intersection Pattern 7
Intersection Pattern 8
Intersection Pattern 9
Intersection Pattern 10
Intersection Pattern 11
Intersection Pattern 12
Intersection Pattern 13
Intersection Pattern 14

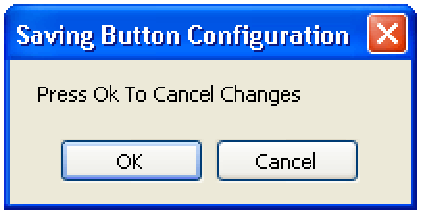
Escape Button



When you click a button in the **Button Control Module** for the first time, the legend **Esc** on the **Escape** button in the upper right corner of the **Device Selection Module** changes from gray to green. The change in color lets you know that the pane is active and ready for your selections.

The **Escape** button enables you to cancel your changes in a pane while returning you to the **Lightbar Pane**. You can also use the button to deselect default settings or your saved settings in a pane with one click.

To cancel your changes in a pane after clicking the **Escape** button, click **OK** in the **Saving Button Configuration** pop-up. To keep your selections, click **Cancel** or the **X** in the popup.


Saving Button Configuration

Press Ok To Cancel Changes

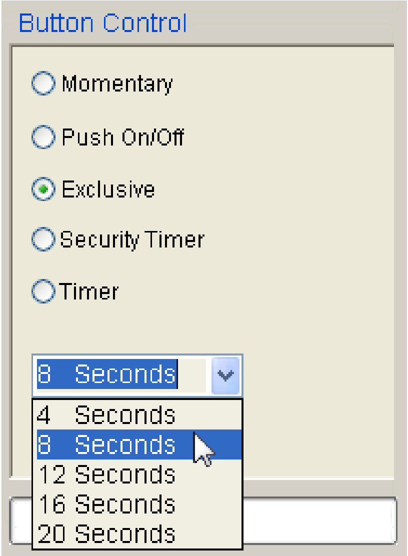
The Button Control Module

The **Button Control Module** enables you to select how a button operates when pressed. See also "Button Control Capabilities" on page 31.

- as a **Momentary** button that turns on a function when pressed and held, and turns off the function when released.
- as a **Push On/Off** button that turns on a function when pressed and turns off the function when pressed again.
- as an **Exclusive** button that turns on a function when pressed and turns off the button that was pressed previously in the same row.
- as a **Security Timer** that requires the sequential press of two buttons to turn on a function that turns off after a set duration. The first button, which is the **Security Timer**, must be selected from the buttons with the capability shown in the table on page 31. The drop-down list of timer durations has a choice of 4, 8, 12, 16, and 20 seconds.

  To turn on the security timer, **Button 14**, which is the second "enable" button, must be pressed within 4 seconds after the first button is pressed. If **Button 14** controls another function, such as a lightbar flash pattern, a second press of **Button 14** turns on the function.

  To turn off the **Security Timer**, press the first button again or let it time out.
- as a **Timer** with a set duration for a function to stay on. The durations are the same as for the **Security Timer**.


Button Control

○ Momentary
○ Push On/Off
● Exclusive
○ Security Timer
○ Timer

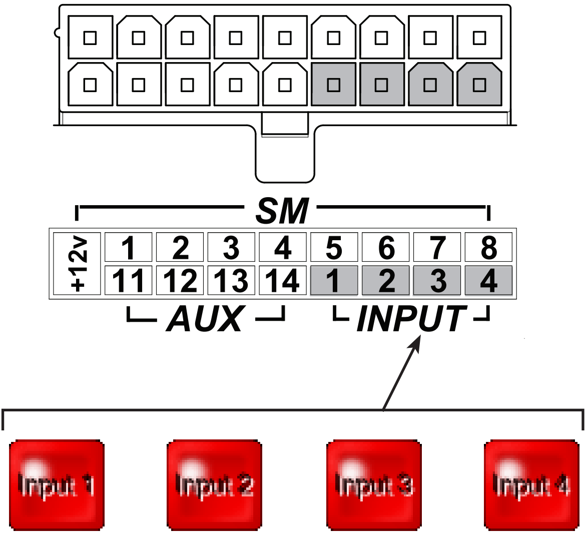
8 Seconds

The **Button Control Module** is not available for:

- the **SignalMaster** button because the button acts as a **Push On/Off** switch that controls the default step-through warning patterns. The button controls only the “step-through” selection of the Left, Right, Center Out directional patterns. A step-through button activates a flash pattern, siren tone, or other function in a sequence each time you press it, starting with the first function.
- the SignalMaster **Warn** button because the it functions as a **Push On/Off** switch that selects one warn pattern or functions as a button that steps through the assignment of two or more warn patterns.
- the slide switch because each switch position acts as a momentary button.

Inputs 1 to 4

You can assign to the **Input** buttons any of the devices and functions in the **Device Selection Module**. Each input button corresponds to one of the four input connections on the back of the SmartSiren Platinum Siren Amplifier. The connections are located below the pins for the discrete SignalMaster. **Input 1** and **2** are active-low inputs that activate a switch when pulled to ground. **Input 3** and **4** are active-high inputs that activate a switch when pulled to 12 Vdc battery voltage. The inputs are most commonly used for switches that send a signal to the SmartSiren Platinum system when a condition in the vehicle changes. Changes may include the opening of a trunk or door, a rise in vehicle temperature, or the release of a gun lock.

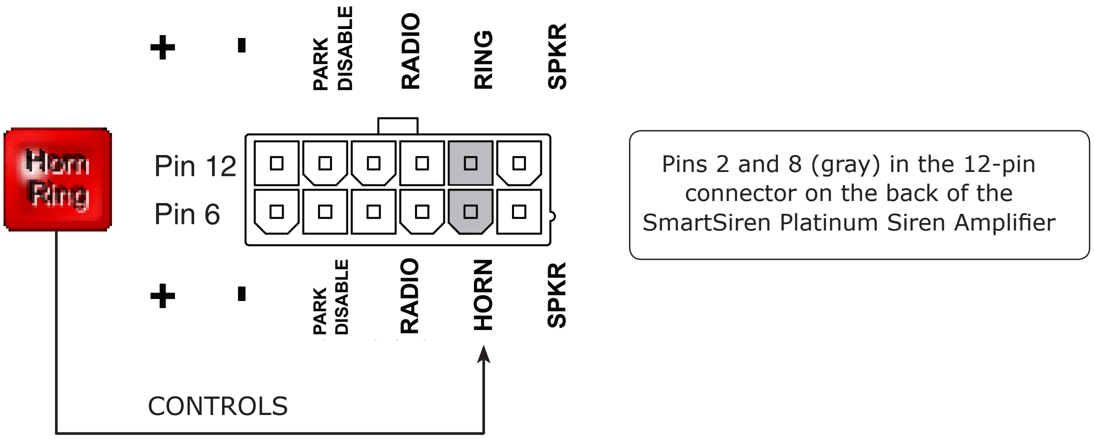


Inputs 1 to 4 (gray) on back of the SmartSiren Platinum Siren Amplifier

Inputs 1 to 4 in SmartSiren Platinum configuration software

Horn Ring

The **Horn Ring** button is for the horn-ring transfer circuit connected through pins 2 and 8 on the 12-pin connector on the SmartSiren Platinum siren amplifier. The default setting for the slide switch is to transfer the horn ring activation of the siren in **Slide Switch 2** and **3**. Each press of the horn button on the steering wheel steps through the **Siren Function** selected for the **Horn Ring** button. In addition, **Slide Switch 2** is configured as **Siren Dependent Enabled**.



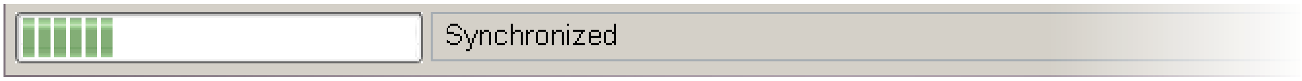
Pins 2 and 8 (gray) in the 12-pin connector on the back of the SmartSiren Platinum Siren Amplifier

File Transfer Status Panes

The **File Transfer Status** Panes at the bottom of the SmartSiren Platinum 3000 Configuration Software window displays information about the transfer progress of configuration files between the control pad and your computer.

Uploading Configuration Files

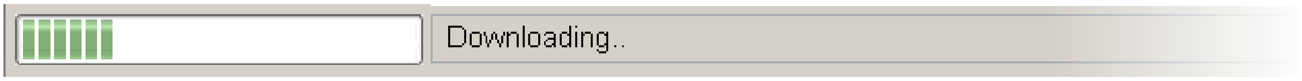
The file upload process begins when you select **Program Control Head** from the **System** menu. The uploaded file replaces the file in the flash memory of the control pad. The file is ready to control the configured devices in the Convergence Network. For additional menu commands, see the table on page 32.



Synchronized

Downloading Configuration Files

The file download process begins when you select **Read Control Pad Configuration** from the **System** menu. The command transfers a configuration file from the control pad to your computer for editing.



Downloading..

The next chapters describe how to configure the control pad using each pane in the **Device Selection Module**. For an overall view of the default settings, see the table on page 115.

Button Control Capabilities

The table below shows the choices for how a button and circuit can operate when activated, the number of functions available, and the character limit of the user-defined button legends.

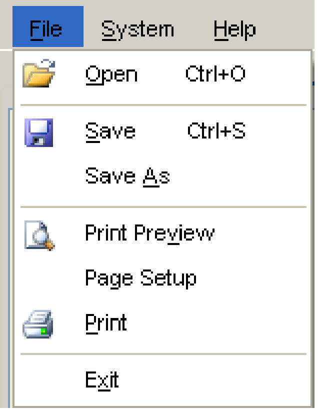
Buttons 1 to **5** and **Buttons 14** and **15** can be programmed to activate when the operator puts the slide switch into a position linked to one or more of these buttons.

SignalMaster SignalMaster Types Step Through Selection of SAE Warn Patterns: Left, ~~Right, Center Out~~ 40 characters	**Warn** Warn Patterns 1–14 Up to four step-through selections Push On/Off for one selection 40 characters	SMARTSIREN® PLATINUM SERIES				**Button 14** Momentary Push On/Off Security Timer Timer 10 functions 40 characters	**Button 15** Momentary Push On/Off Security Timer Timer 10 functions 40 characters
Button 6 Momentary Push On/Off Exclusive 10 functions 40 characters	**Button 7** Momentary Push On/Off Exclusive 10 functions 40 characters	**Button 8** Momentary Push On/Off Exclusive 10 functions 40 characters	**Button 9** Momentary Push On/Off Exclusive 10 functions 40 characters	**Button 10** Momentary Push On/Off Exclusive 10 functions 40 characters	**Button 11** Momentary Push On/Off Exclusive 10 functions 40 characters	**Button 12** Momentary Push On/Off Exclusive 10 functions 40 characters	**Button 13** Momentary Push On/Off Exclusive 10 functions 40 characters
Slide Switch 1 10 functions Momentary Progressive Can attach functions of Buttons 1–5, 14, 15, SignalMaster, and Warn 44 characters	**Slide Switch 2** 10 functions Momentary Progressive Can attach functions of Buttons 1–5, 14, 15, SignalMaster, and Warn 44 characters	**Slide Switch 3** 20 functions Momentary Progressive Can attach functions of Buttons 1–5, 14, 15, SignalMaster, and Warn 44 characters	**Button 1** Momentary Push On/Off Exclusive Security Timer Timer 10 functions 40 characters	**Button 2** Momentary Push On/Off Security Timer Timer 10 functions 40 characters	**Button 3** Momentary Push On/Off Security Timer Timer 10 functions 40 characters	**Button 4** Momentary Push On/Off Security Timer Timer 10 functions 40 characters	**Button 5** Momentary Push On/Off Security Timer Timer 10 functions 40 characters

Input 1 Active Low Momentary Push On/Off Security Timer Timer 24 characters	**Input 2 Active Low** Momentary Push On/Off Security Timer Timer 24 characters	**Input 3 Active High** Momentary Push On/Off Security Timer Timer 24 characters	**Input 4 Active High** Momentary Push On/Off Security Timer Timer 24 characters	**Horn Ring** On Power Up 24 characters

Menu Commands

File Menu


File
System
Help
Open Ctrl+O
Save Ctrl+S
Save As
Print Preview
Page Setup
Print
Exit

Open: Enables you to select and open a configuration file stored on your hard drive and loads it the random access memory (RAM) of your computer for editing or uploading to the control pad.

Save: Saves a configuration file over the open configuration file.

Save As: Saves a configuration file in a location of your choice.

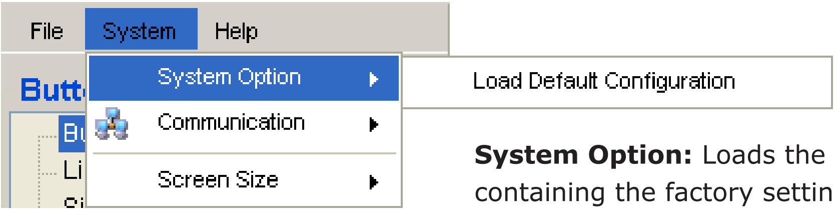
Print Preview: Displays and zooms a preview of the page layout of the SmartSiren Platinum interface.

Page Setup: Opens a dialogue box of print settings that you can set to print a copy of the selected configuration window.

Print: Prints a copy of the configuration window.

Exit: Closes the SmartSiren Platinum software application without saving the configuration file.

System Menu

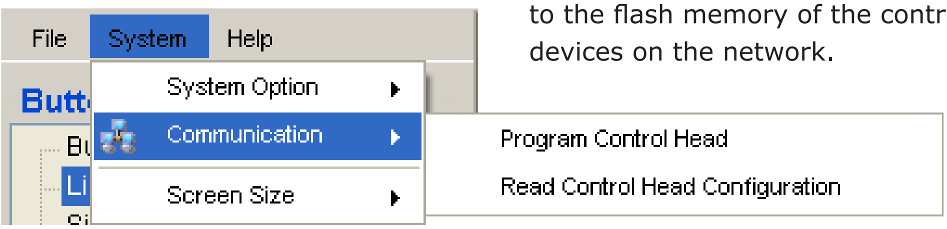

File
System
Help
System Option
Communication
Screen Size
Load Default Configuration

System Option: Loads the default configuration file containing the factory settings.

continued on next page

Menu Commands *(continued)*

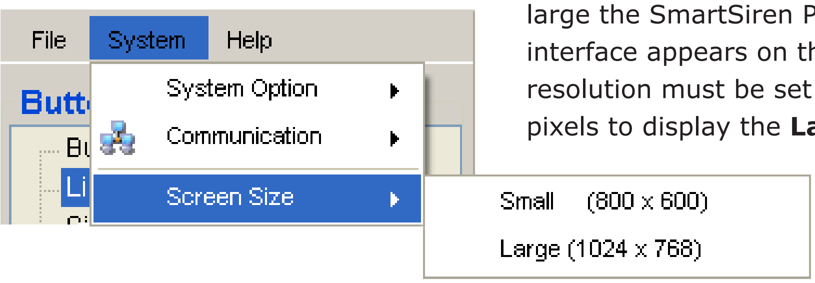
System Menu


File
System
Help
Butt
Bu
Li
System Option
Communication
Screen Size
Program Control Head
Read Control Head Configuration

Communication > Program Control Pad: Uploads a configuration file from your computer to the flash memory of the control head to control devices on the network.

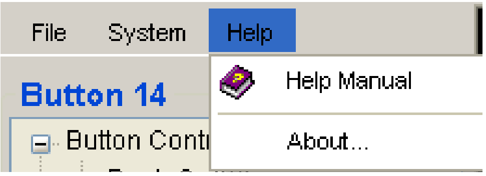
Read Control Pad Configuration: Downloads the configuration file from the control head to your computer so that you can edit it.

System Menu


File
System
Help
Butt
Bu
Li
System Option
Communication
Screen Size
Small (800 x 600)
Large (1024 x 768)

Screen Size: Enables you to determine how large the SmartSiren Platinum application interface appears on the screen. Your screen resolution must be set to at least 1024 x 768 pixels to display the **Large** size.

Help Menu


File
System
Help
Button 14
Button Contr
Help Manual
About...

Help Manual: Displays a pdf of the control pad configuration software manual.

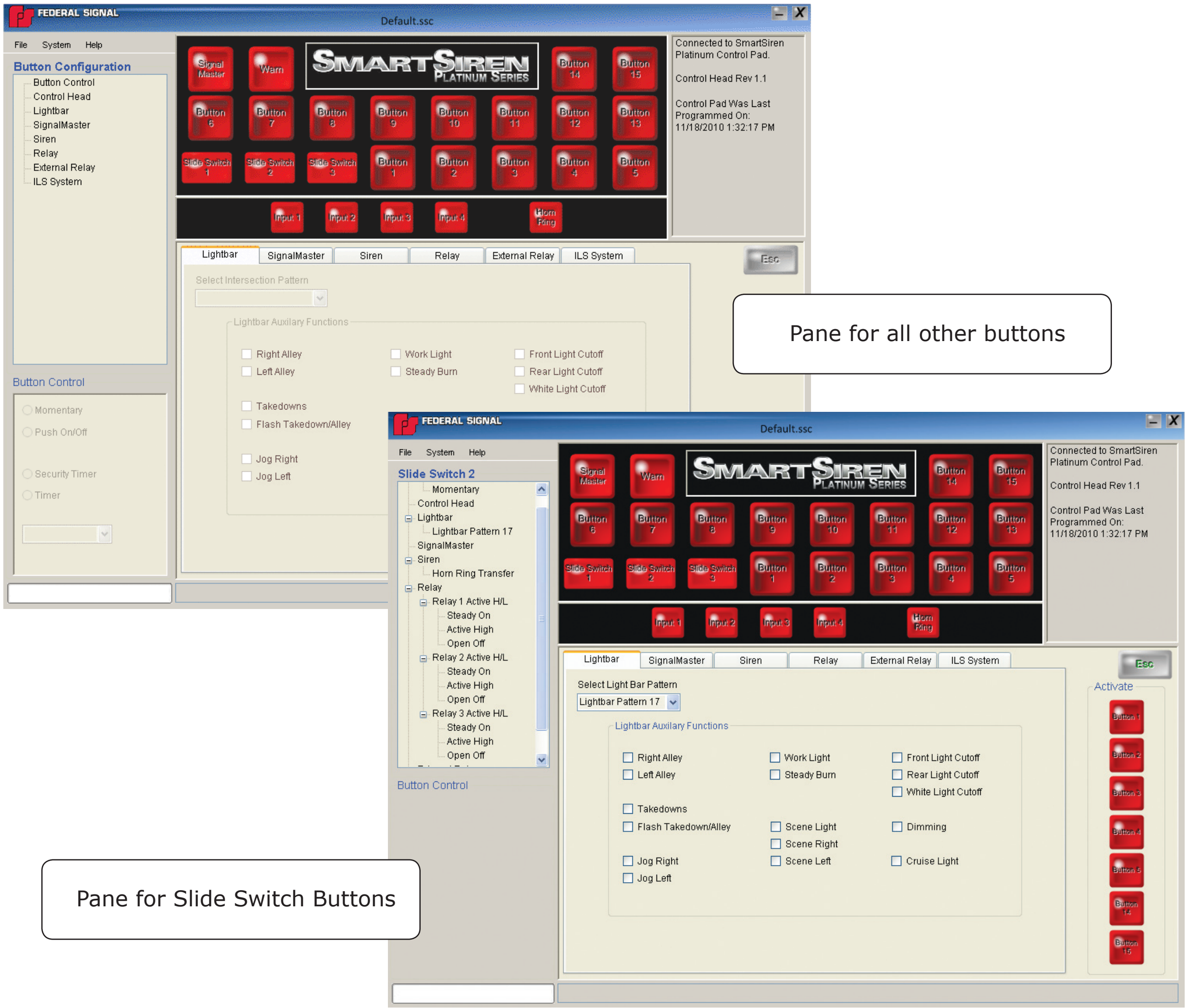
About: Displays the software version, description, and copyright.

CHAPTER 4

Configuring the Lightbar

An Overview of the Lightbar Pane

The lightbar pane is the first pane to appear when you launch the application. It has selections for a full-featured, serially-controlled lightbar, such as the Federal Signal Arjent® S2, Legend®, Raydian® S2, Valor™, and Vision™ SLR. The lightbar auxiliary functions in the pane are not dimmed because you can assign them to more than one button. For example, if the takedown lights are assigned to **Button 2**, they remain available for assignment to other buttons.



Connected to SmartSiren Platinum Control Pad.

Control Head Rev 1.1

Control Pad Was Last Programmed On: 11/18/2010 1:32:17 PM

Select Light Bar Pattern: Lightbar Pattern 17

FEDERAL SIGNAL
Default.ssc
File System Help
Button Configuration
Button Control
Control Head
Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System
SMARTSIREN PLATINUM SERIES
Signal Master
Warn
Button 14
Button 15
Button 6
Button 7
Button 8
Button 9
Button 10
Button 11
Button 12
Button 13
Slide Switch 1
Slide Switch 2
Slide Switch 3
Button 1
Button 2
Button 3
Button 4
Button 5
Input 1
Input 2
Input 3
Input 4
Horn Ring
Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System
Esc
Select Intersection Pattern
Lightbar Auxilary Functions
Right Alley
Left Alley
Work Light
Steady Burn
Front Light Cutoff
Rear Light Cutoff
White Light Cutoff
Takedowns
Flash Takedown/Alley
Jog Right
Jog Left
Momentary
Push On/Off
Security Timer
Timer
Slide Switch 2
Momentary
Control Head
Lightbar
Lightbar Pattern 17
SignalMaster
Siren
Horn Ring Transfer
Relay
Relay 1 Active H/L
Steady On
Active High
Open Off
Relay 2 Active H/L
Steady On
Active High
Open Off
Relay 3 Active H/L
Steady On
Active High
Open Off
Scene Light
Scene Right
Scene Left
Dimming
Cruise Light
Activate
Button 1
Button 2
Button 3
Button 4
Button 5
Button 14
Button 15

Pane for all other buttons

Pane for Slide Switch Buttons

Lightbar Default Settings

Before you begin, you may want to review these lightbar default settings. For an keypad view of the default settings, see the table in the appendix on page 115.

Button	Button Control	Pattern	Auxiliary Function
Slide Switch 1	Momentary*	Lightbar Pattern 10	Front Light Cutoff
Slide Switch 2	Momentary*	Lightbar Pattern 17	
Slide Switch 3	Momentary*	Lightbar Pattern 26	Flash Takedown/Alley
Button 1	Push On/Off		Left Alley
Button 2	Push On/Off		Takedowns
Button 3	Push On/Off		Right Alley
Button 4	Timer	Intersection Pattern 22	
Button 14	Push On/Off		Dimming
Button 15	Push On/Off		Rear Light Cutoff

** The **Button Control Module** is not available because the option cannot be changed.*

Verify features before configuring the lightbar

Federal Signal lightbars may not have all the features available in the lightbar pane. To make the software configuration of the control pad quick and accurate, determine what hardware features and DIP switch settings are in the lightbar before you begin.

Assigning Lightbar Functions to Buttons

Buttons 1 to **5** and **Buttons 14** and **15** can be programmed to activate when the operator puts the slide switch into a position linked to one or more of these buttons. If you are configuring this feature, first determine which buttons and functions to activate and their corresponding slide switch positions. See "Linking Buttons to Slide Switch Positions (Lightbar Pane)" on page 39.

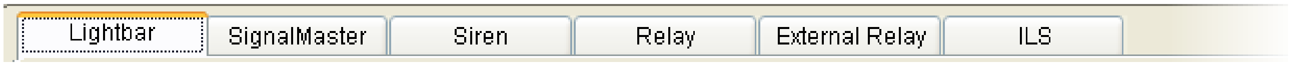
To assign lightbar functions:

1. Click any button except **SignalMaster** and **Warn**:

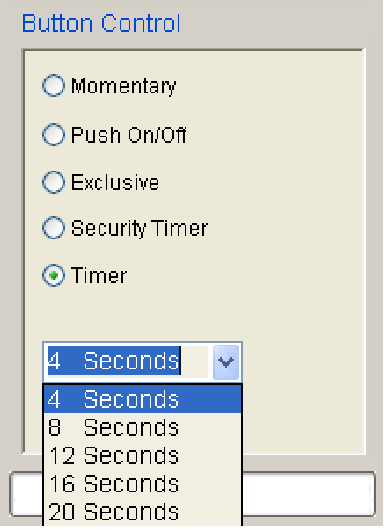
Button Function Limits

The functions for all buttons (except **Slide Switch 3**, which accepts a limit of 20) are limited to a maximum of 10.

2. If the lightbar pane is not in front of the other **Device Selection** panes, click the **Lightbar** tab.


Lightbar
SignalMaster
Siren
Relay
External Relay
ILS

3. Select how you want the button to operate by clicking an option button in the **Button Control** pane. If you want the button to act as a timer, select the duration from the drop-down list.



Button Control

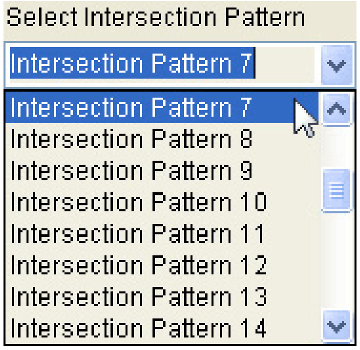
○ Momentary
○ Push On/Off
○ Exclusive
○ Security Timer
● Timer

4 Seconds

4 Seconds
8 Seconds
12 Seconds
16 Seconds
20 Seconds

4. Click the arrow next to the drop-down list of 30 flash patterns. Move your cursor over a pattern to highlight and select it. The SmartSiren Platinum Siren Amplifier mimics the corresponding flash pattern number available in the lightbar model on the Convergence Network.

The flash patterns are classified as either **Lightbar** for the **Slide Switch** buttons or **Intersection** for all other buttons except **SignalMaster** and **Warn**. They are the same patterns; the different classification emphasizes how they are used. The intersection pattern is typically a high activity pattern that is assigned to a **Timer** button with an eight second duration.



Select Intersection Pattern

Intersection Pattern 7

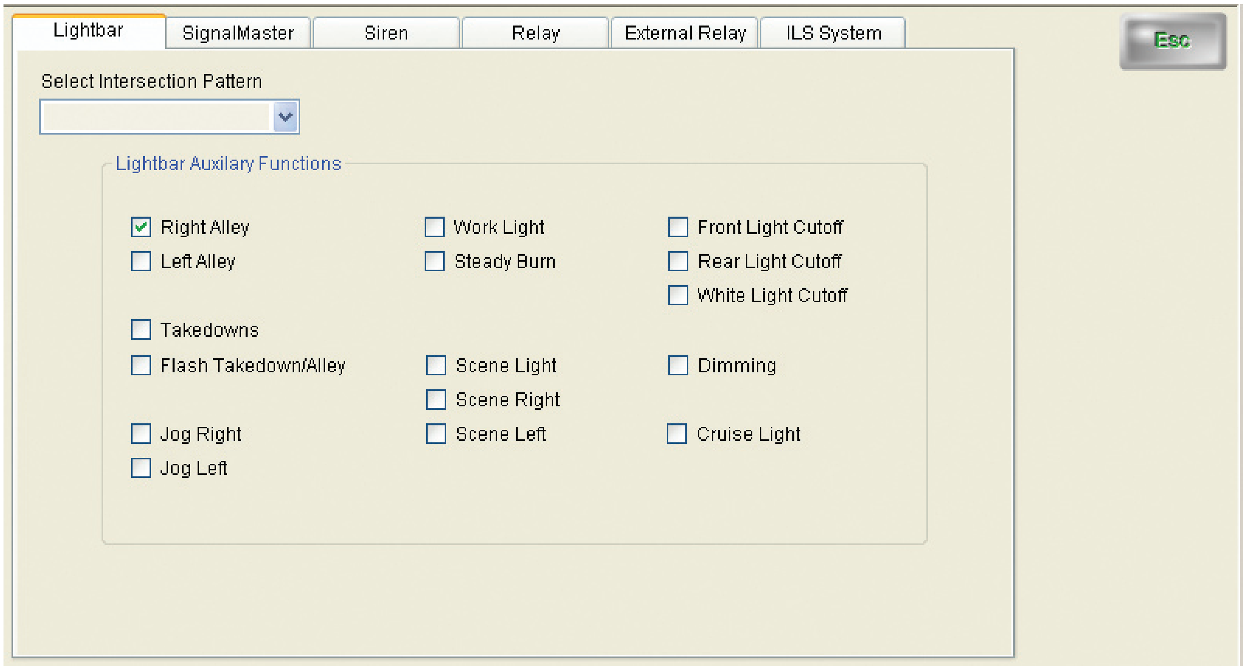
Intersection Pattern 7
Intersection Pattern 8
Intersection Pattern 9
Intersection Pattern 10
Intersection Pattern 11
Intersection Pattern 12
Intersection Pattern 13
Intersection Pattern 14

Available flash patterns

Some lightbars have fewer or more flash patterns than are available in the drop-down list. Lightbars that have fewer patterns are restricted to the last pattern available in the pattern library within the lightbar. Lightbars that have more patterns are restricted to the number available in the drop-down list.

For more information about flash patterns, consult the instruction manual for your model of lightbar.

5. Select **Lightbar Auxiliary** functions for the button. For a description of the functions, see the table on page 42.



Select Intersection Pattern

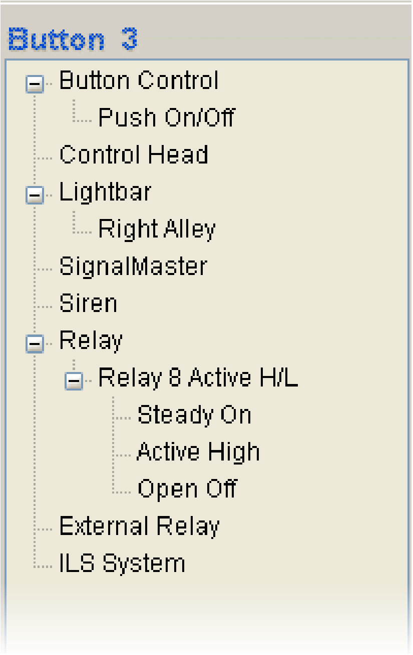
Lightbar Auxilary Functions

☑ Right Alley
☐ Left Alley
☐ Takedowns
☐ Flash Takedown/Alley
☐ Jog Right
☐ Jog Left

☐ Work Light
☐ Steady Burn
☐ Scene Light
☐ Scene Right
☐ Scene Left

☐ Front Light Cutoff
☐ Rear Light Cutoff
☐ White Light Cutoff
☐ Dimming
☐ Cruise Light

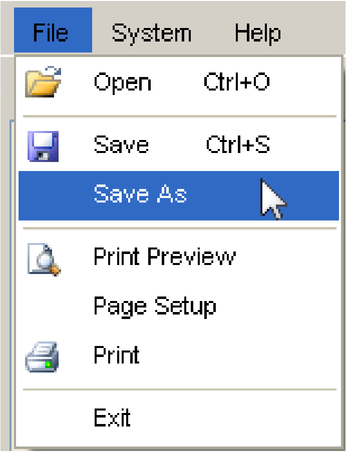
6. Verify your button settings in the **Button Configuration Module**.



Button 3

- Button Control
  - Push On/Off
- Control Head
- Lightbar
  - Right Alley
- SignalMaster
- Siren
- Relay
  - Relay 8 Active H/L
    - Steady On
    - Active High
    - Open Off
- External Relay
- ILS System

7. When you are finished, press **CTRL** + **S**, or select **Save** or **Save As** from the **File** menu, and save the configuration file in the folder you created on your hard drive.



Pop-Up Message: "Overwriting the Default Configuration"

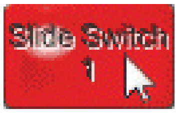
When you select **Save** for the first time, the message "Trying to overwrite protected default configuration" appears. Click **OK**. In the **Save As** dialog box, navigate to the folder you created for your configuration files and save the file under a new name. When you click **Save** again before closing the application, it updates your renamed file by overwriting it.

Linking Buttons to Slide Switch Positions (Lightbar Pane)

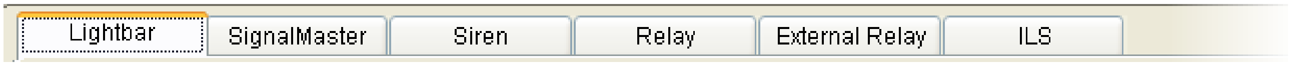
Buttons 1 to **5** and **Buttons 14** and **15** can be programmed to activate when the operator puts the slide switch into a position linked to one or more of these buttons. This feature enables the operator to turn functions on and off without changing the position of the slide switch. Linking a button also extends the number of assignable functions available to a slide switch button with the additional 10 functions of the linked button.

To link a button for activation by a slide switch position:

1. Click a **Slide Switch Button**.


Slide Switch
1

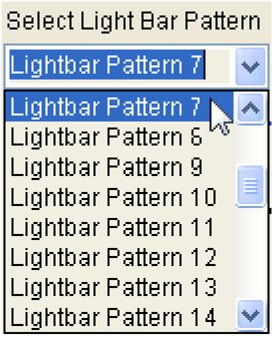
2. If the lightbar pane is not in front of the other **Device Selection** panes, click the **Lightbar** tab.


Lightbar
SignalMaster
Siren
Relay
External Relay
ILS

Note: The Button Control Module is unavailable for assignment because each position acts as a momentary switch that turns on and off devices assigned to them. To program the slide switch to operate as a progressive switch, assign the same functions from the previous slide switch position to the next position, then add new functions. Up to ten functions can be assigned directly to **Slide Switch 1** and **2**, and up to twenty to **Slide Switch 3**.

3. Click the arrow next to the drop-down list of 30 flash patterns. Move your cursor over a pattern to highlight and select it. The SmartSiren Platinum Siren Amplifier mimics the corresponding flash pattern number available in the lightbar model on the Convergence Network.

The flash patterns are classified as either **Lightbar** for the **Slide Switch** buttons or **Intersection** for all other buttons except **SignalMaster** and **Warn**. They are the same patterns; the different classification emphasizes how they are used. The intersection pattern is typically a high activity pattern that is assigned to a **Timer** button with an eight second duration.


Select Light Bar Pattern
Lightbar Pattern 7
Lightbar Pattern 7
Lightbar Pattern 8
Lightbar Pattern 9
Lightbar Pattern 10
Lightbar Pattern 11
Lightbar Pattern 12
Lightbar Pattern 13
Lightbar Pattern 14

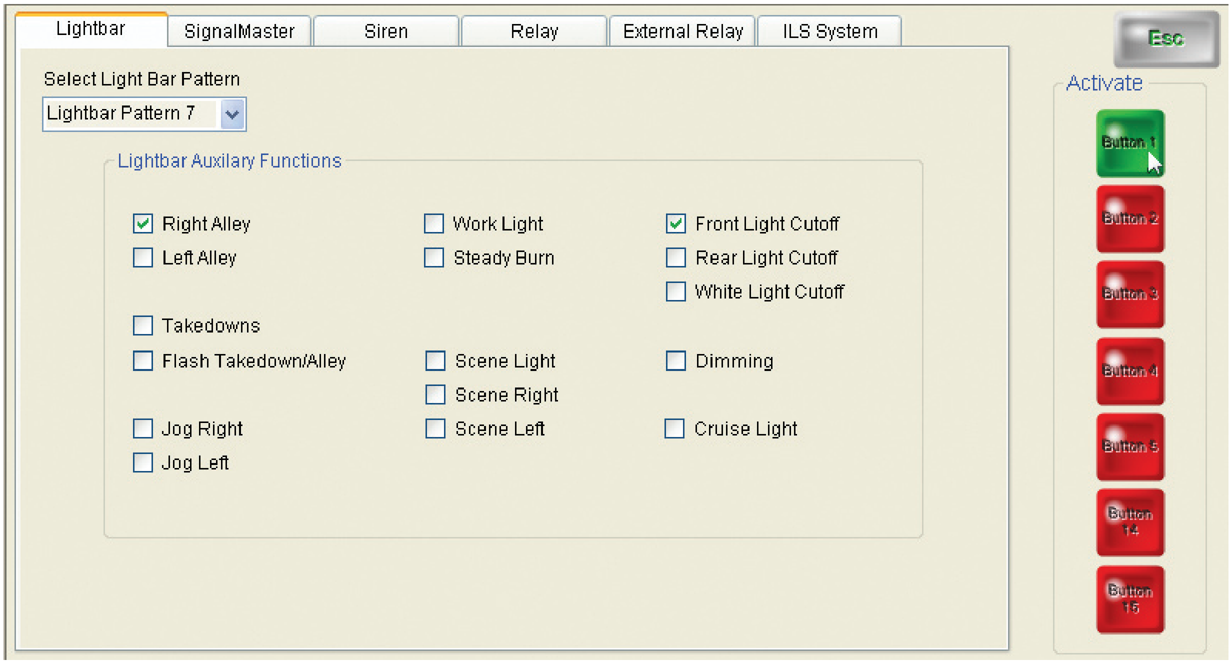
Available flash patterns

Some lightbars have fewer or more flash patterns than are available in the drop-down list. Lightbars that have fewer patterns are restricted to the last pattern available in the pattern library within the lightbar. Lightbars that have more patterns are restricted to the number available in the drop-down list.

For more information about flash patterns, consult the instruction manual for your model of lightbar.

4. Select **Lightbar Auxiliary** functions for the button. For a description of the functions, see the table on page 42.

5. Click a button to activate it (green) in the selected slide switch position. Select additional buttons if you want to turn on or off their assigned functions along with the function assigned to the slide switch position.

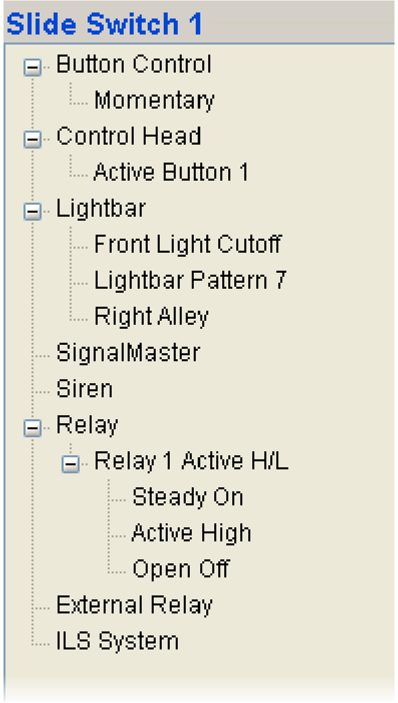

Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System
Esc
Activate
Button 1
Button 2
Button 3
Button 4
Button 5
Button 14
Button 15

Select Light Bar Pattern: Lightbar Pattern 7

Lightbar Auxilary Functions

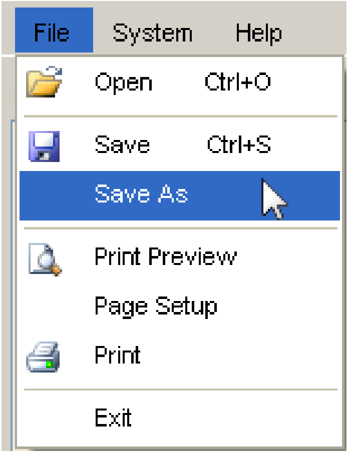
☑ Right Alley	☐ Work Light	☑ Front Light Cutoff
☐ Left Alley	☐ Steady Burn	☐ Rear Light Cutoff
		☐ White Light Cutoff
☐ Takedowns		
☐ Flash Takedown/Alley	☐ Scene Light	☐ Dimming
	☐ Scene Right	
☐ Jog Right	☐ Scene Left	☐ Cruise Light
☐ Jog Left		

6. Verify your button settings in the **Button Configuration Module**. The buttons activated by the slide switch position is listed under **Control Head** in the directory tree.



Slide Switch 1
- Button Control
  - Momentary
- Control Head
  - Active Button 1
- Lightbar
  - Front Light Cutoff
  - Lightbar Pattern 7
  - Right Alley
- SignalMaster
- Siren
- Relay
  - Relay 1 Active H/L
    - Steady On
    - Active High
    - Open Off
- External Relay
- ILS System

7. When you are finished, press **CTRL** + **S**, or select **Save** or **Save As** from the **File** menu, and save the configuration file in the folder you created on your hard drive.


File
System
Help
Open Ctrl+O
Save Ctrl+S
Save As
Print Preview
Page Setup
Print
Exit

Pop-Up Message: "Overwriting the Default Configuration"

When you select **Save** for the first time, the message "Trying to overwrite protected default configuration" appears. Click **OK**. In the **Save As** dialog box, navigate to the folder you created for your configuration files and save the file under a new name. When you click **Save** again before closing the application, it updates your renamed file by overwriting it.

Lightbar Auxiliary Functions

Function	***Description***
☐ Right Alley	White light directed to the right side of the vehicle.
☐ Left Alley	White light directed to the left side of the vehicle.
☐ Work Light	White light directed to the rear of the vehicle.
☐ Steady Burn	One or more lights that stay on and do not flash.
☐ Front Light Cutoff	Turns off light on the front of the lightbar.
☐ Rear Light Cutoff	Turns off light on the rear of the lightbar.
☐ White Light Cutoff	Turns off all white lights: alley, takedown, work lights, scene, and cruise lights.
☐ Takedowns	White light directed to the front of the vehicle.
☐ Flash Takedown/Alley	Flashes the takedown and alley lights.
☐ Scene Light	White lights typically used in pairs to illuminate the work areas around the perimeter of the vehicle.
☐ Scene Right	Scene light on the front right of the lightbar
☐ Scene Left	Scene light on the front left of the lightbar
☐ Dimming	Dims the lights approximately 50 percent to prevent blinding approaching drivers at night.
☐ Cruise Light	The outer ends of the lightbar dim to eliminate the disorienting effect of flashing lights.

continued on next page

Lightbar Auxiliary Functions *(continued)*

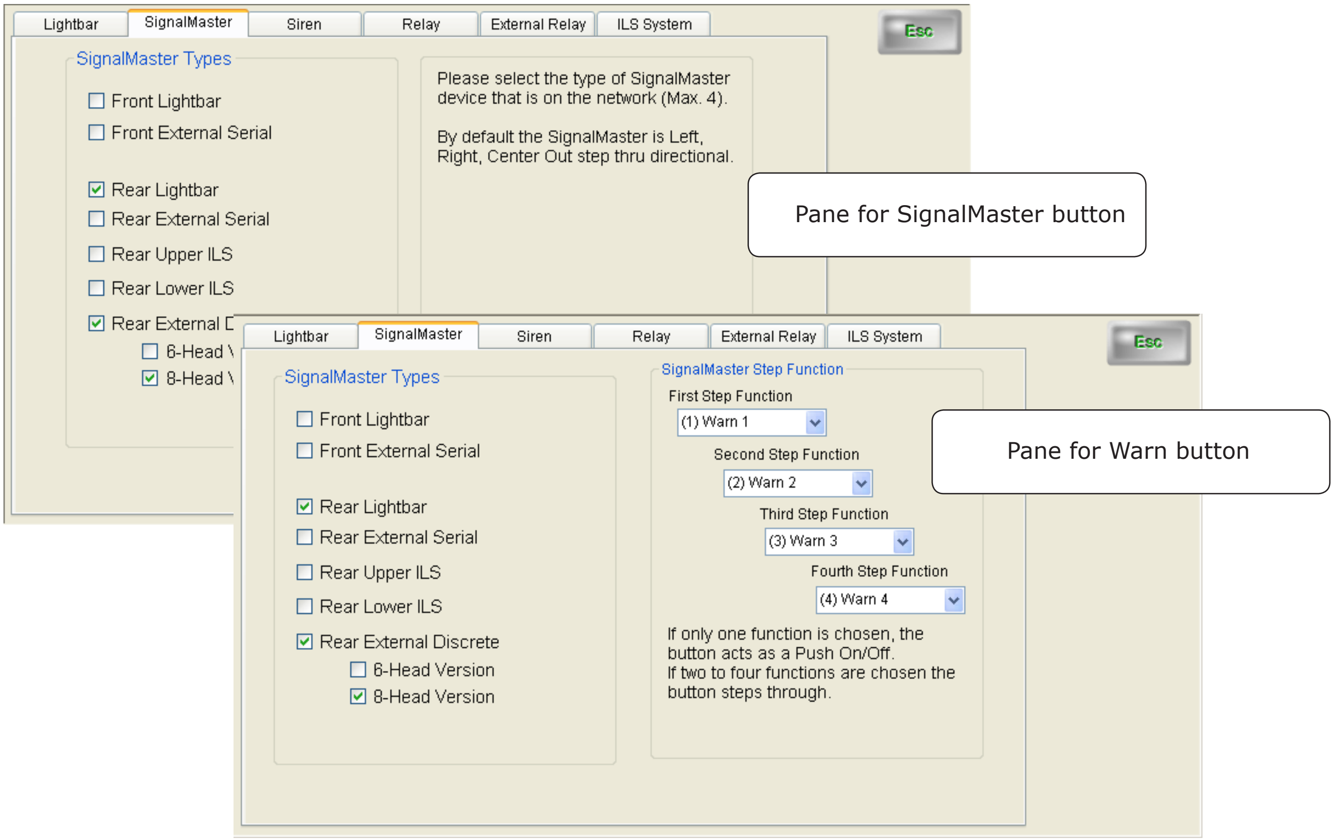
Function	***Description***
☐ Jog Right (Vision SLR)	Takedown LED pods rotate to the right 1.875 degrees (192 steps) with each press of the control pad button assigned to the function. To rotate the takedowns to a position, press and hold the control pad button. Release the button when the pod reaches the position you want. Alley LED pod moves backward with a press of the control pad button assigned to the function.
☐ Jog Left (Vision SLR)	Takedown LED pods rotate to the right 1.875 degrees (192 steps) with each press of the control pad button assigned to the function. To rotate the takedowns to a position, press and hold the control pad button. Release the button when the pod reaches the position you want. Alley LED pod moves forward with a press of the control pad button assigned to the function.

CHAPTER 5

Configuring the SignalMaster

An Overview of the SignalMaster Pane

The **SignalMaster** Pane has seven types of SignalMaster lightbars of which a maximum of four can be assigned to the network. The button you select determines which of four SignalMaster panes opens on your desktop. The **SignalMaster** and **Warn** buttons are dedicated only to SignalMaster lights.



Pane for SignalMaster button

SignalMaster Types

☐ Front Lightbar
☐ Front External Serial
☑ Rear Lightbar
☐ Rear External Serial
☐ Rear Upper ILS
☐ Rear Lower ILS
☑ Rear External D
  ☐ 6-Head V
  ☑ 8-Head V

Please select the type of SignalMaster device that is on the network (Max. 4).

By default the SignalMaster is Left, Right, Center Out step thru directional.

Pane for Warn button

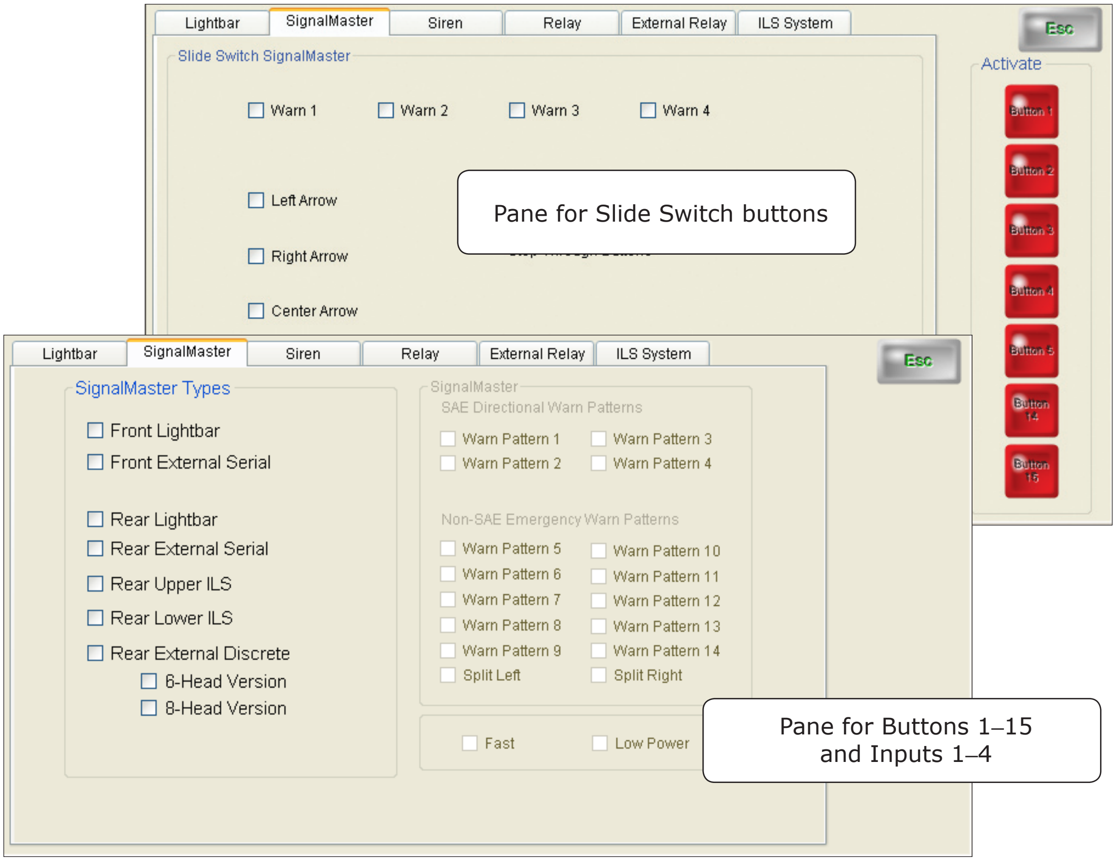
SignalMaster Types

☐ Front Lightbar
☐ Front External Serial
☑ Rear Lightbar
☐ Rear External Serial
☐ Rear Upper ILS
☐ Rear Lower ILS
☑ Rear External Discrete
  ☐ 6-Head Version
  ☑ 8-Head Version

SignalMaster Step Function

First Step Function: (1) Warn 1
Second Step Function: (2) Warn 2
Third Step Function: (3) Warn 3
Fourth Step Function: (4) Warn 4

If only one function is chosen, the button acts as a Push On/Off.
If two to four functions are chosen the button steps through.


Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System
Esc
Slide Switch SignalMaster
☐ Warn 1
☐ Warn 2
☐ Warn 3
☐ Warn 4
☐ Left Arrow
☐ Right Arrow
☐ Center Arrow
Activate
Button 1
Button 2
Button 3
Button 4
Button 5
Button 14
Button 15
SignalMaster Types
☐ Front Lightbar
☐ Front External Serial
☐ Rear Lightbar
☐ Rear External Serial
☐ Rear Upper ILS
☐ Rear Lower ILS
☐ Rear External Discrete
☐ 6-Head Version
☐ 8-Head Version
SignalMaster
SAE Directional Warn Patterns
☐ Warn Pattern 1
☐ Warn Pattern 3
☐ Warn Pattern 2
☐ Warn Pattern 4
Non-SAE Emergency Warn Patterns
☐ Warn Pattern 5
☐ Warn Pattern 10
☐ Warn Pattern 6
☐ Warn Pattern 11
☐ Warn Pattern 7
☐ Warn Pattern 12
☐ Warn Pattern 8
☐ Warn Pattern 13
☐ Warn Pattern 9
☐ Warn Pattern 14
☐ Split Left
☐ Split Right
☐ Fast
☐ Low Power

Pane for Slide Switch buttons

Pane for Buttons 1–15 and Inputs 1–4

SignalMaster lights build directional patterns by sequentially activating six or eight amber light heads. Each lamp remains lit until the pattern is completed. SignalMaster lights also flash up to 14 different warn patterns.

SignalMaster types are either standalone lightbars or are integrated into the front or rear of a full-featured Federal Signal lightbar. Lightbar models include the Arjent S2, Legend, Raydian S2, Valor, and Vision SLR. When part of a full-featured lightbar, SignalMaster light heads can be any color, except when they also serve as Stop/Turn/Tail LEDs, Worklights, and Takedown lights.

SignalMaster Default Settings

Before you begin, you may want to review these SignalMaster default settings. For an keypad view of the default settings, see the table in the appendix on page 115.

Button	Button Control*	Signal Type	Pattern
SignalMaster	Momentary	Rear Lightbar Rear External Discrete, 8-Head Version	Step-Through selection of Left, Right, Center Out patterns (not configurable)
Warn	Momentary	Rear Lightbar. Rear External Discrete, 8-Head Version	Step-through warning Patterns 1 through 4

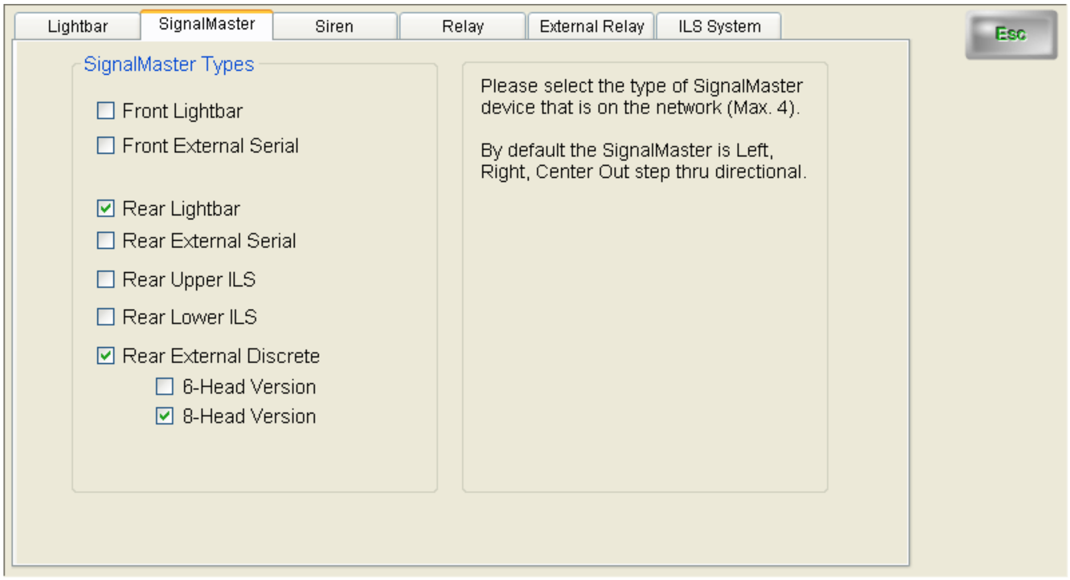
** The **Button Control Module** is not available because the option cannot be changed.*

Verify features before configuring the lightbar

Federal Signal ILS lightbars may not have all the features available in the lightbar pane. To make the software configuration of the control pad quick and accurate, determine what hardware features and DIP switch settings are in the lightbar before you begin. Refer to “Setting Configuration Options” for the Rear ILS lightbar in Doc. No. 2562422 and “Setting Configuration Options” for the Front ILS lightbar in Doc. No. 2562423.

Assigning SignalMaster Control to the SignalMaster Button

When you click the **SignalMaster** button, a SignalMaster pane with default step-through SAE directional patterns appears in the **Device Selection Module**. Select up to four networked SignalMaster types and the application takes care of assigning the directional patterns for you, in which each press of the button steps through a selection of Left, Right, Center Out.



SignalMaster Types

☐ Front Lightbar
☐ Front External Serial
☑ Rear Lightbar
☐ Rear External Serial
☐ Rear Upper ILS
☐ Rear Lower ILS
☑ Rear External Discrete
  ☐ 6-Head Version
  ☑ 8-Head Version

Please select the type of SignalMaster device that is on the network (Max. 4).

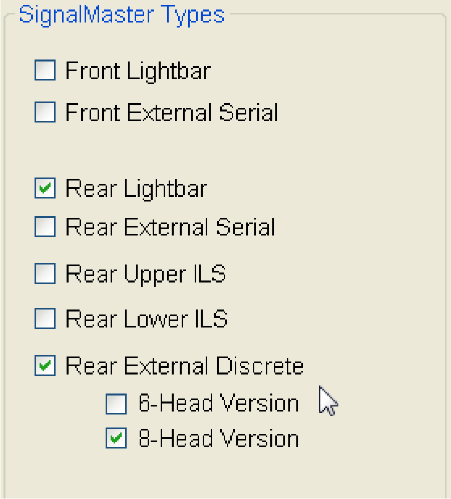
By default the SignalMaster is Left, Right, Center Out step thru directional.

To assign SignalMaster control to the **SignalMaster** button.

1. Click the **SignalMaster** button. The **SignalMaster** pane moves to the front.

Signal Master

2. Select the types of SignalMaster installed in the vehicle. Up to four different types can be assigned to the Convergence Network. The types are described in the table on page 57.

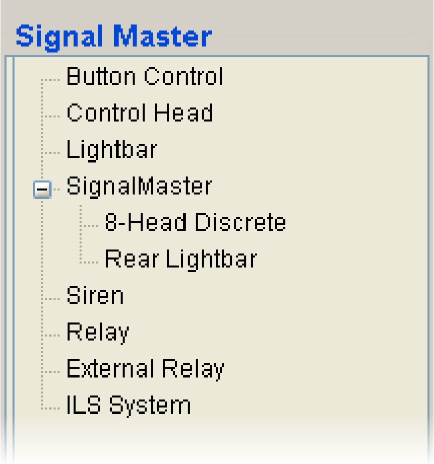


SignalMaster Types

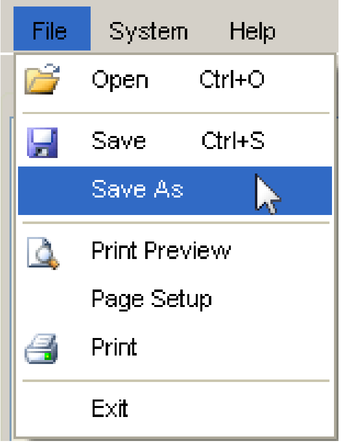
☐ Front Lightbar
☐ Front External Serial

☑ Rear Lightbar
☐ Rear External Serial
☐ Rear Upper ILS
☐ Rear Lower ILS
☑ Rear External Discrete
    ☐ 6-Head Version
    ☑ 8-Head Version

3. Verify your button settings in the **Button Configuration Module**.


Signal Master
Button Control
Control Head
Lightbar
SignalMaster
8-Head Discrete
Rear Lightbar
Siren
Relay
External Relay
ILS System

4. When you are finished, press **CTRL** + **S**, or select **Save** or **Save As** from the **File** menu, and save the configuration file in the folder you created on your hard drive.


File
System
Help
Open Ctrl+O
Save Ctrl+S
Save As
Print Preview
Page Setup
Print
Exit

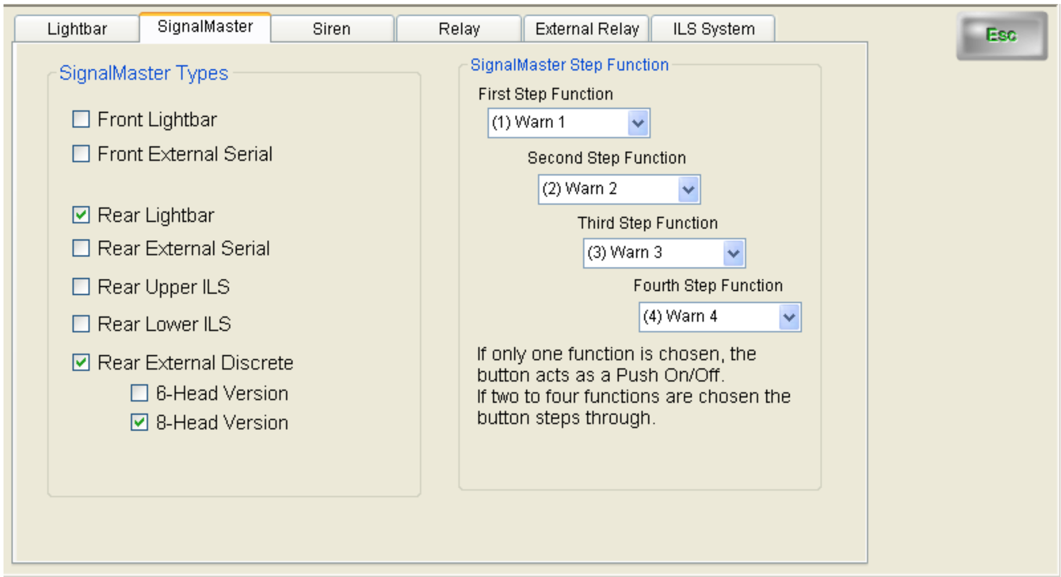
Pop-Up Message: "Overwriting the Default Configuration"

When you select **Save** for the first time, the message "Trying to overwrite protected default configuration" appears. Click **OK**. In the **Save As** dialog box, navigate to the folder you created for your configuration files and save the file under a new name. When you click **Save** again before closing the application, it updates your renamed file by overwriting it.

Assigning SignalMaster Control to the Warn Button

When you select the **Warn** button, a SignalMaster pane appears in the **Device Selection Module** with four step functions, each with 14 selectable warning patterns. SAE directional warn patterns are **Warn Patterns 1** through **4**. Non-SAE Emergency Warn Patterns are **Warn Patterns 5** through **14**.

Buttons 1 to **5** and **Buttons 14** and **15** can be programmed to activate when the operator puts the slide switch into a position linked to one or more of these buttons. This feature enables the operator to turn selected directional patterns on and off or skip steps in selecting a step-through SignalMaster warn or directional pattern without changing the position of the slide switch. See "Assigning SignalMaster Control to the Slide Switch" on page 54.



SignalMaster Types

☐ Front Lightbar
☐ Front External Serial
☑ Rear Lightbar
☐ Rear External Serial
☐ Rear Upper ILS
☐ Rear Lower ILS
☑ Rear External Discrete
  ☐ 6-Head Version
  ☑ 8-Head Version

SignalMaster Step Function

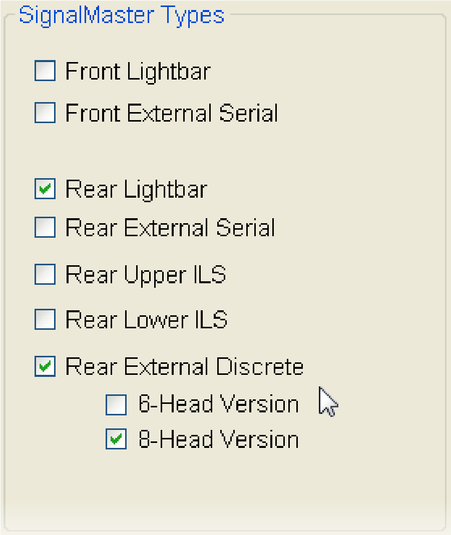
First Step Function: (1) Warn 1
Second Step Function: (2) Warn 2
Third Step Function: (3) Warn 3
Fourth Step Function: (4) Warn 4

If only one function is chosen, the button acts as a Push On/Off.
If two to four functions are chosen the button steps through.

To assign a Signalmaster function to the **Warn** button:

1. Click the **Warn** button. The **SignalMaster** pane moves to the front.

2. Select the types of SignalMaster lights installed in the vehicle. Up to four different types can be assigned to the Convergence Network. They are described in the table on page 57.

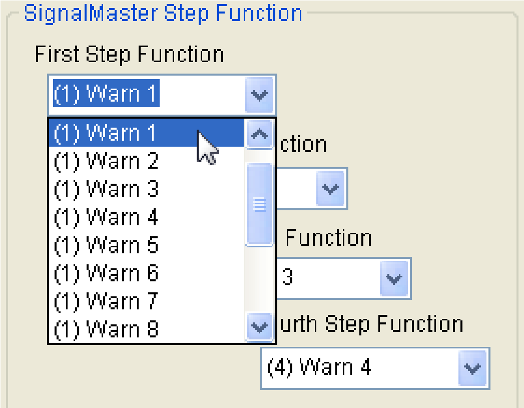


SignalMaster Types

☐ Front Lightbar
☐ Front External Serial

☑ Rear Lightbar
☐ Rear External Serial
☐ Rear Upper ILS
☐ Rear Lower ILS
☑ Rear External Discrete
  ☐ 6-Head Version
  ☑ 8-Head Version

3. To select Warn Pattern step functions, click the arrow next to the drop-down list. Move your cursor over a pattern to highlight and select it. If you assign only one step function, the button acts as a push on/off button. If you assign more than one step function, each press of the button steps through an assigned pattern. A press of the button after the last assigned step function turns off the button.



SignalMaster Step Function

First Step Function
(1) Warn 1

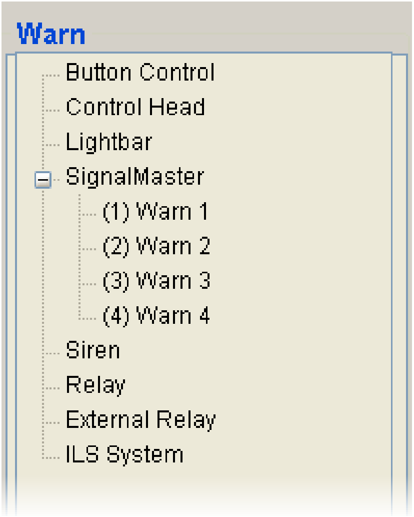
(1) Warn 1
(1) Warn 2
(1) Warn 3
(1) Warn 4
(1) Warn 5
(1) Warn 6
(1) Warn 7
(1) Warn 8

ction

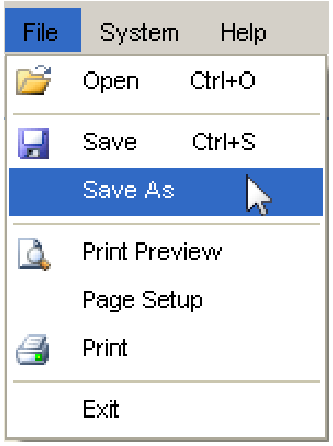
Function
3

urth Step Function
(4) Warn 4

4. Verify your settings in the **Button Configuration Module**.


Warn
Button Control
Control Head
Lightbar
SignalMaster
(1) Warn 1
(2) Warn 2
(3) Warn 3
(4) Warn 4
Siren
Relay
External Relay
ILS System

5. When you are finished, press **CTRL** + **S**, or select **Save** or **Save As** from the **File** menu, and save the configuration file in the folder you created on your hard drive.


File
System
Help
Open Ctrl+O
Save Ctrl+S
Save As
Print Preview
Page Setup
Print
Exit

Pop-Up Message: "Overwriting the Default Configuration"

When you select **Save** for the first time, the message "Trying to overwrite protected default configuration" appears. Click **OK**. In the **Save As** dialog box, navigate to the folder you created for your configuration files and save the file under a new name. When you click **Save** again before closing the application, it updates your renamed file by overwriting it.

Assigning SignalMaster Control to Buttons 1 to 15 and Inputs

If you select **Buttons 1** to **15** and the **Input Buttons** a pane appears with 16 different warn patterns, including **Split Left** and **Split Right**, and the options to increase build speed or dim the lights. For a description of **Fast** and **Low Power**, see the table “Fast and Low Power Options” on page 58.

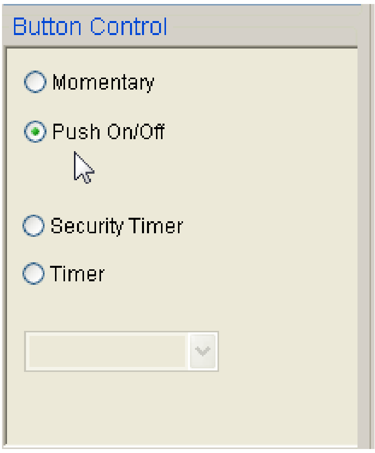
To assign a SignalMaster function to a button:

1. Click the any button except **SignalMaster** and **Warn**.

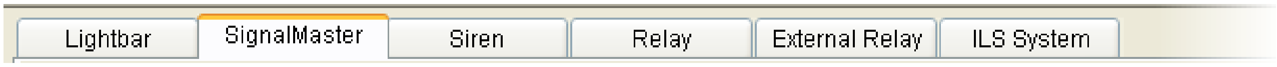
Button Function Limits

The selections for all buttons (except **Slide Switch 3**, which accepts a limit of 20) are limited to a maximum of 10.

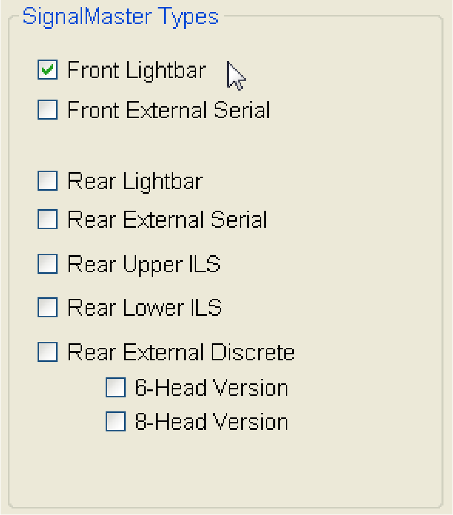
2. Select how you want the button to operate by clicking an option button in the **Button Control** pane. If you want the button to act as a timer, select the duration from the drop-down list.


Button Control
○ Momentary
● Push On/Off
○ Security Timer
○ Timer

3. If the lightbar pane is not in front of the other **Device Selection** panes, click the **Lightbar** tab.


Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System

4. Select the types of SignalMaster installed in the vehicle. Up to four different types can be assigned to the Convergence Network. They are described in the table on page 57.

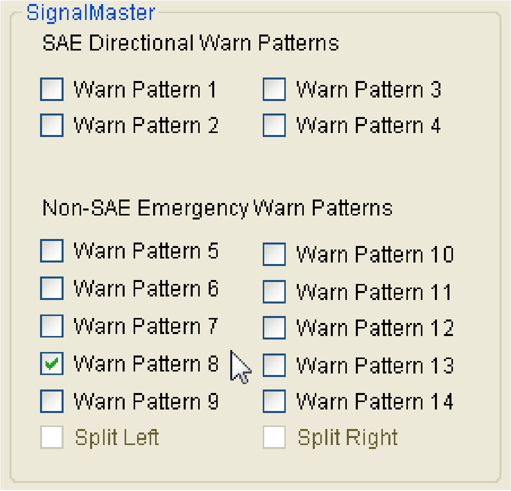


SignalMaster Types

☑ Front Lightbar
☐ Front External Serial

☐ Rear Lightbar
☐ Rear External Serial
☐ Rear Upper ILS
☐ Rear Lower ILS
☐ Rear External Discrete
    ☐ 6-Head Version
    ☐ 8-Head Version

5. Select one warn pattern. When the button is pressed, each selected **SignalMaster Type** displays the pattern. **Split Left** and **Split Right** are not available for **Front** SignalMaster types.



SignalMaster

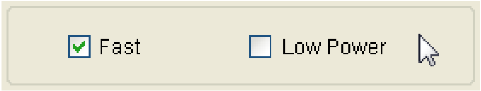
SAE Directional Warn Patterns

☐ Warn Pattern 1
☐ Warn Pattern 2
☐ Warn Pattern 3
☐ Warn Pattern 4

Non-SAE Emergency Warn Patterns

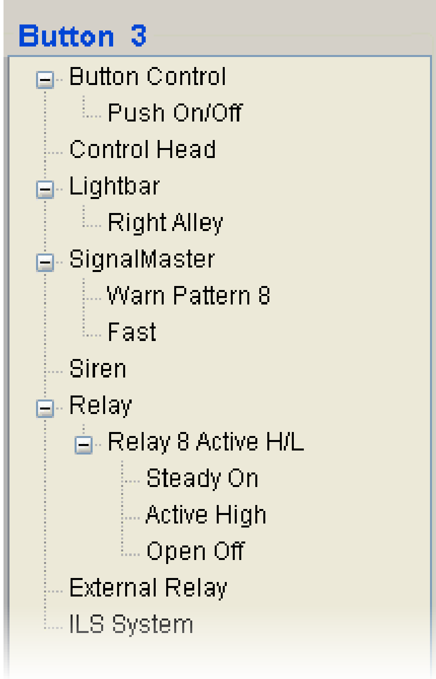
☐ Warn Pattern 5
☐ Warn Pattern 6
☐ Warn Pattern 7
☑ Warn Pattern 8
☐ Warn Pattern 9
☐ Split Left
☐ Warn Pattern 10
☐ Warn Pattern 11
☐ Warn Pattern 12
☐ Warn Pattern 13
☐ Warn Pattern 14
☐ Split Right

6. Select **Fast** or **Low Power**, or both. See the table “Fast and Low Power Options” on page 58.



☑ Fast
☐ Low Power

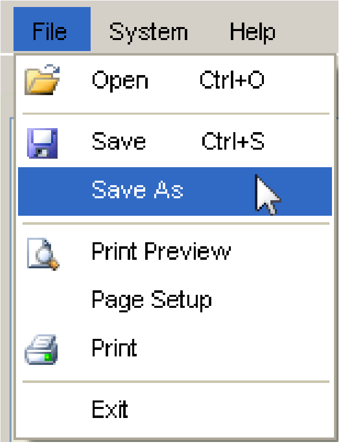
7. Verify your settings in the **Button Configuration Module**.



Button 3

- Button Control
  - Push On/Off
- Control Head
- Lightbar
  - Right Alley
- SignalMaster
  - Warn Pattern 8
  - Fast
- Siren
- Relay
  - Relay 8 Active H/L
    - Steady On
    - Active High
    - Open Off
- External Relay
- ILS System

8. When you are finished, press **CTRL** + **S**, or select **Save** or **Save As** from the **File** menu, and save the configuration file in the folder you created on your hard drive.



Pop-Up Message: "Overwriting the Default Configuration"

When you select **Save** for the first time, the message "Trying to overwrite protected default configuration" appears. Click **OK**. In the **Save As** dialog box, navigate to the folder you created for your configuration files and save the file under a new name. When you click **Save** again before closing the application, it updates your renamed file by overwriting it.

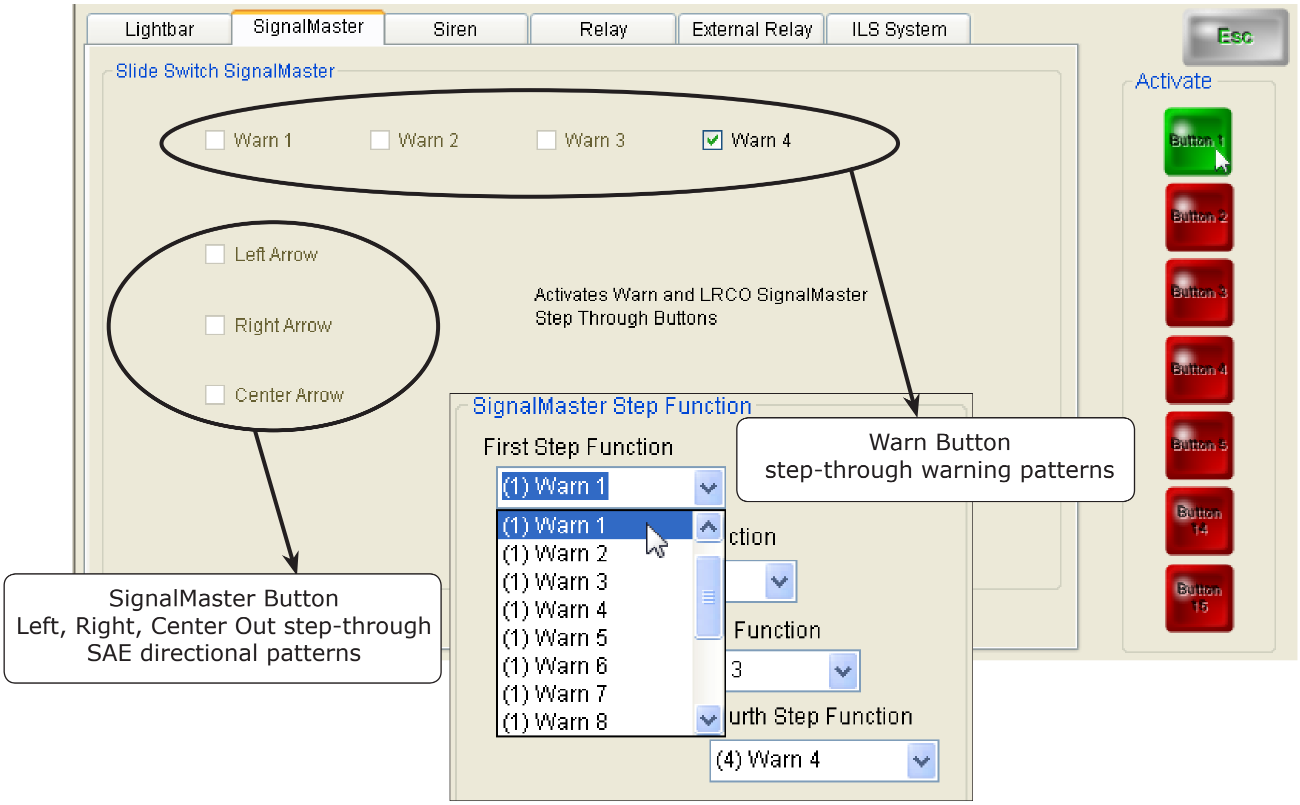
Assigning SignalMaster Control to the Slide Switch

When you click a **Slide Switch** button, a **SignalMaster** pane appears with selections associated with the **SignalMaster** and **Warn** buttons. See “Assigning SignalMaster Control to the to the SignalMaster Button” on page 46 and “Assigning SignalMaster Control to the Warn Button” on page 48).

Warn 1 (First Step Function) through **Warn 4** (Fourth Step Function) enable you to link the **Warn** patterns you selected in the SignalMaster pane for the **Warn** button to a **Slide Switch Button**.

Left Arrow, **Right Arrow**, and **Center Out** enable you to link any of the three directional patterns associated with the **SignalMaster** button to a **Slide Switch Button**.

The button associated with a slide switch position activates when the operator puts the slide switch into a position linked to the button. This feature enables the operator to turn patterns on and off or skip steps in selecting a step-through SignalMaster warn or directional pattern without changing the position of the slide switch. Linking a button also extends the number of assignable functions available to a slide switch button with the additional 10 functions of the linked button.



Slide Switch SignalMaster

☐ Warn 1 ☐ Warn 2 ☐ Warn 3 ☑ Warn 4

☐ Left Arrow

☐ Right Arrow

☐ Center Arrow

Activates Warn and LRCO SignalMaster Step Through Buttons

SignalMaster Step Function

First Step Function: (1) Warn 1

(1) Warn 1
(1) Warn 2
(1) Warn 3
(1) Warn 4
(1) Warn 5
(1) Warn 6
(1) Warn 7
(1) Warn 8

Function: 3

urth Step Function: (4) Warn 4

Warn Button
step-through warning patterns

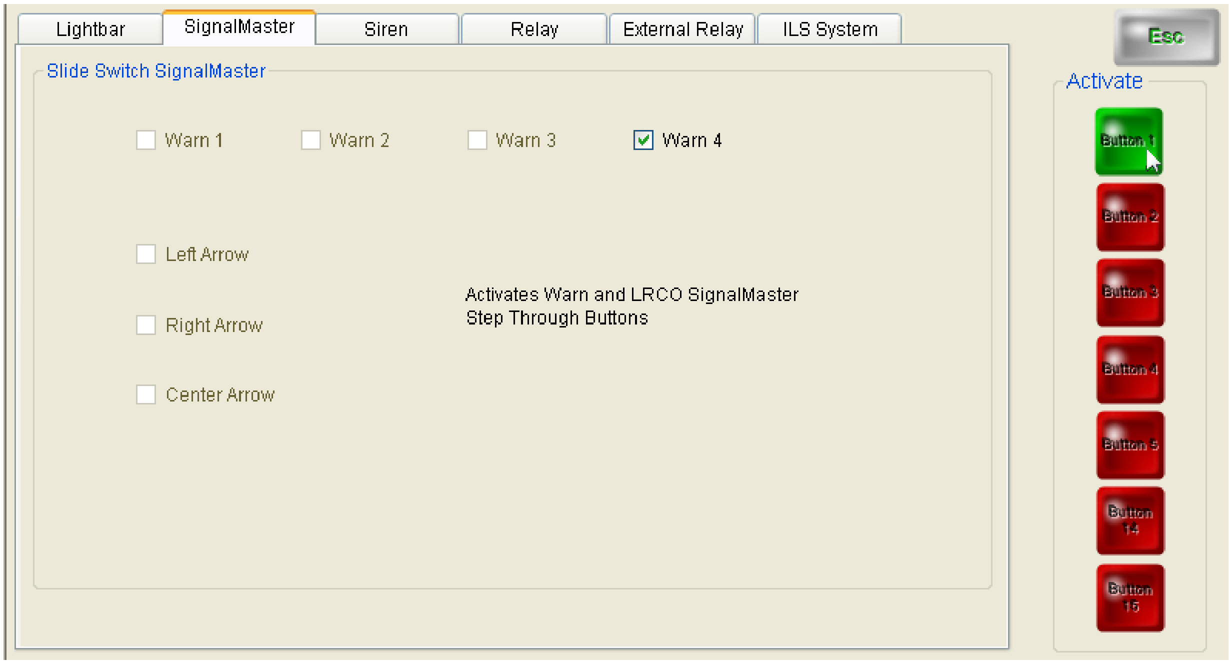
SignalMaster Button
Left, Right, Center Out step-through
SAE directional patterns

To link a button for activating a warning or directional pattern:

1. Click a **Slide Switch Button**.

Slide Switch
1

2. Select a SignalMaster step function (with its associated warn pattern) and assign it to the button you want activated. In the example below, **Button 1,** activated by **Slide Switch Position 1**, turns on the warn pattern assigned to the **Fourth Step Function**, which is the fourth push of the **Warn Button**.


Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System
Esc
Activate
Button 1
Button 2
Button 3
Button 4
Button 5
Button 14
Button 15

Slide Switch SignalMaster

☐ Warn 1 ☐ Warn 2 ☐ Warn 3 ☑ Warn 4

☐ Left Arrow

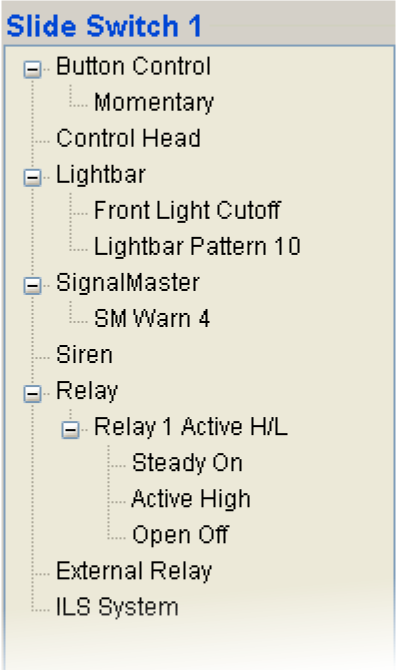
☐ Right Arrow

☐ Center Arrow

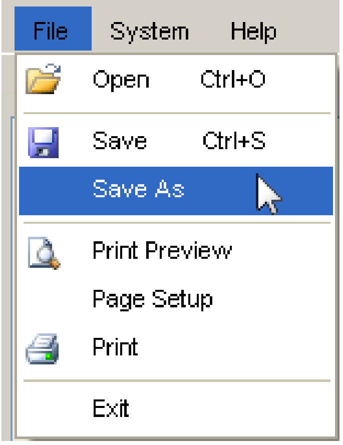
Activates Warn and LRCO SignalMaster Step Through Buttons

3. To continue, click another **Slide Switch Button**, select a function, and click another button (**Buttons 1 to 5** and **Buttons 14** and **15**) to activate.

4. When you are finished, verify your settings in the **Button Configuration Module**. The activated **Button 1** is listed under **Control Head** in the directory tree. The **SignalMaster Step Function** assigned to **Button 1** is the warn pattern assigned to the **Fourth Step** (fourth press) of the **Warn Button**.


Slide Switch 1
Button Control
Momentary
Control Head
Lightbar
Front Light Cutoff
Lightbar Pattern 10
SignalMaster
SM Warn 4
Siren
Relay
Relay 1 Active H/L
Steady On
Active High
Open Off
External Relay
ILS System

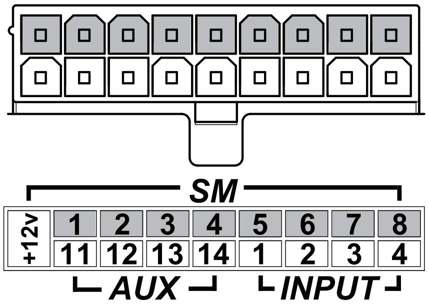
5. When you are finished, press **CTRL** + **S**, or select **Save** or **Save As** from the **File** menu, and save the configuration file in the folder you created on your hard drive.


File
System
Help
Open Ctrl+O
Save Ctrl+S
Save As
Print Preview
Page Setup
Print
Exit

Pop-Up Message: "Overwriting the Default Configuration"

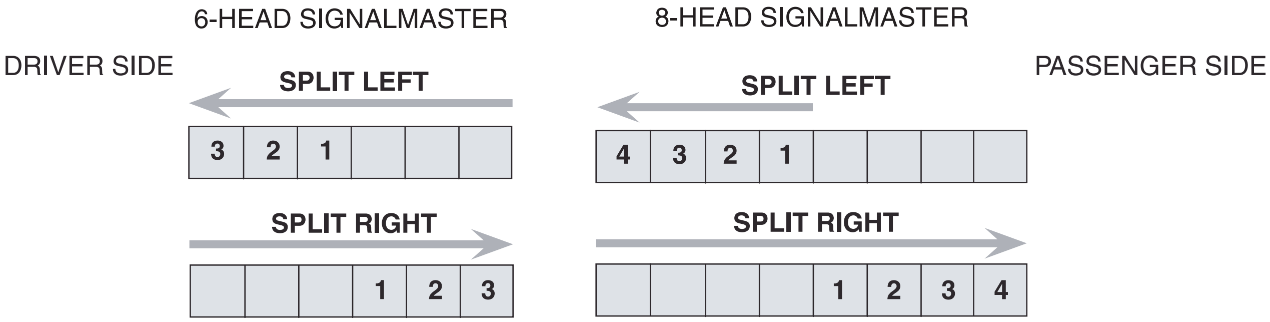
When you select **Save** for the first time, the message "Trying to overwrite protected default configuration" appears. Click **OK**. In the **Save As** dialog box, navigate to the folder you created for your configuration files and save the file under a new name. When you click **Save** again before closing the application, it updates your renamed file by overwriting it.

SignalMaster Types

Function	***Description***
☐ Front Lightbar	Six or eight SignalMaster light heads that are built into the front of a serially-controlled Federal Signal lightbar.
☐ Rear External Serial	A standalone serially-controlled SignalMaster that is mounted on the exterior of the vehicle facing the front. The lightbar is connected to a serial port on the SmartSiren Platinum Siren Amplifier through a RS-485 cable.
☐ Rear Lightbar	Six or eight SignalMaster light heads that are built into the rear of a serially-controlled Federal Signal lightbar.
☐ Rear External Serial	A standalone serially-controlled SignalMaster lightbar that is mounted on the exterior of the vehicle facing the rear. The lightbar is connected to a serial port on the SmartSiren Platinum Siren Amplifier through an RS-485 cable.
☐ Rear Upper ILS	A standalone Solaris ILS SignalMaster lightbar that is mounted on the inside of the upper rear windshield. The lightbar is connected to a serial port on the SmartSiren Platinum Siren Amplifier through an RS-485 cable.
☐ Rear Lower ILS	A standalone Solaris ILS SignalMaster lightbar that is mounted on the inside of the lower rear windshield. The lightbar is connected to a serial port on the SmartSiren Platinum Siren Amplifier through an RS-485 cable.
☐ Rear External Discrete ☐ 6-Head Version ☐ 8-Head Version	A non-serially-controlled standalone SignalMaster lightbar that is mounted facing the rear of the vehicle. The **6-Head Version** has wires that connect to SM pins 2 through 7 on the SmartSiren Platinum Siren Amplifier. The **8-Head Version** has wires that connect to SM pins 1 through 8 on the SmartSiren Platinum Siren Amplifier.  SM +12V 1 2 3 4 5 6 7 8 11 12 13 14 1 2 3 4 AUX INPUT

SignalMaster ILS Directional Patterns

Function	Description
☐ Split Left	Only available with the Rear ILS and Rear External Discrete (standalone) SignalMaster. Displays a chasing pattern from the center of the SignalMaster to the left, directing traffic to proceed around the vehicle to the left.
☐ Split Right	Only available with the Rear ILS and Rear External Discrete (standalone) SignalMaster. Displays a chasing pattern from the center of the SignalMaster to the right, directing traffic to proceed around the vehicle to the right.


6-HEAD SIGNALMASTER
8-HEAD SIGNALMASTER
DRIVER SIDE
PASSENGER SIDE
SPLIT LEFT
3
2
1
SPLIT LEFT
4
3
2
1
SPLIT RIGHT
1
2
3
SPLIT RIGHT
1
2
3
4

Fast and Low Power Options

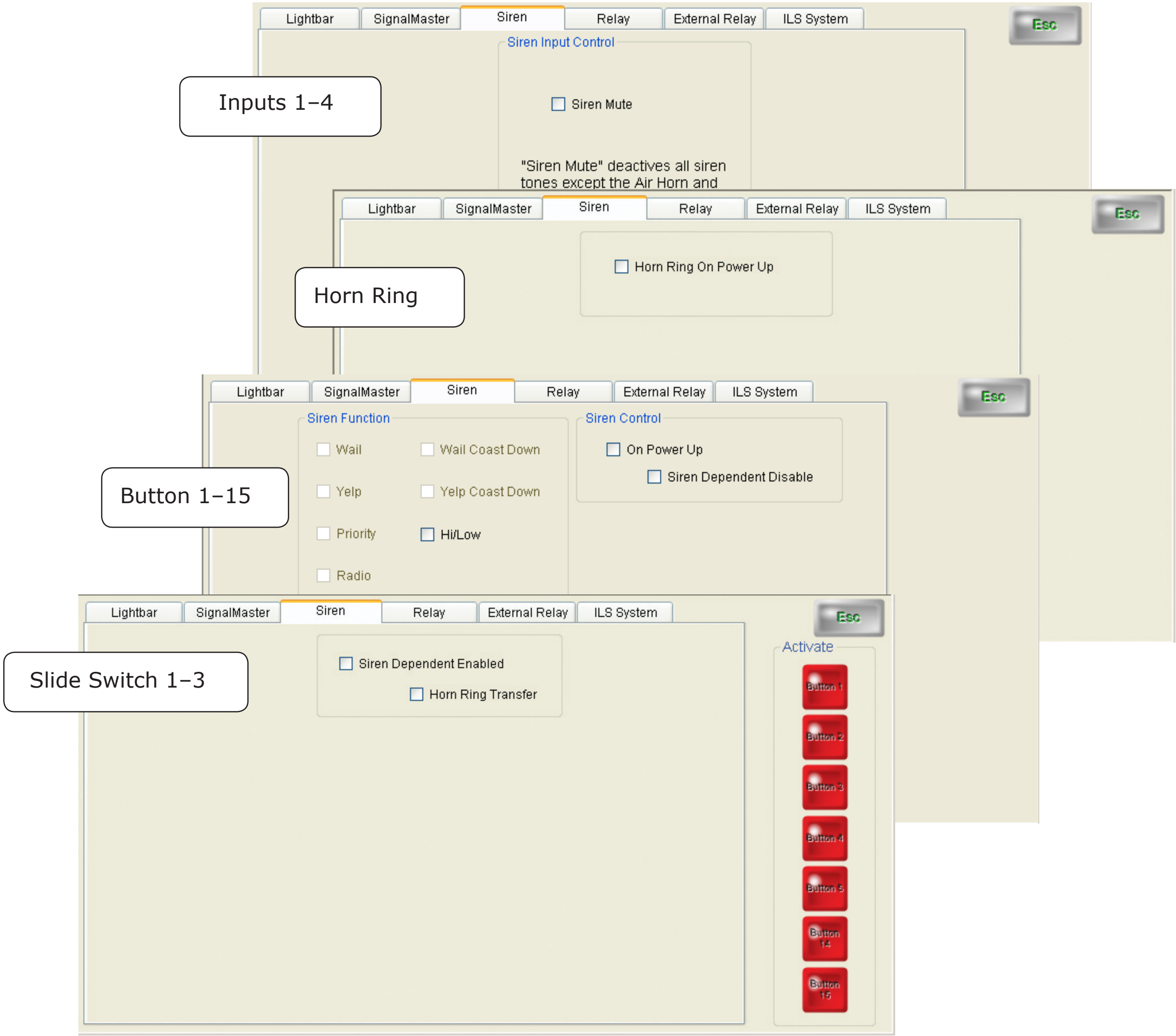
Function	Description
☐ Fast	Increases the build speed and the urgency of the warning pattern.
☐ Low Power	To decrease power consumption and for nighttime operation, low-power mode turns on a single lamp at a time, instead of building the pattern. The feature is available only with the **Rear External Discrete** SignalMaster.

CHAPTER 6

Configuring the Siren

An Overview of the Siren Pane

The button you select determines which of four **Siren** panes opens on your desktop. The sections that follow describe the functions that are available depending on the button selected.


Inputs 1–4
Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System
Esc
Siren Input Control
☐ Siren Mute
Horn Ring
☐ Horn Ring On Power Up
Button 1–15
Siren Function
☐ Wail
☐ Wail Coast Down
☐ Yelp
☐ Yelp Coast Down
☐ Priority
☐ Hi/Low
☐ Radio
Siren Control
☐ On Power Up
☐ Siren Dependent Disable
Slide Switch 1–3
☐ Siren Dependent Enabled
☐ Horn Ring Transfer
Activate
Button 1
Button 2
Button 3
Button 4
Button 5
Button 14
Button 15

"Siren Mute" deactives all siren tones except the Air Horn and

Siren Default Settings

Before you begin, you may want to review these siren default settings. For an keypad view of the default settings, see the table in the appendix on page 115.

Button	Siren Function	Button Control	Activated Button
Button 6	Siren: Standby	Exclusive	
Button 7	Siren: Radio	Exclusive	
Button 9	Siren: Wail	Exclusive	
Button 10	Siren: Yelp	Exclusive	
Button 11	Siren: Priority	Exclusive	
Button 12	Siren: Manual	Momentary	
Button 13	Siren: Air Horn	Momentary	
Slide Switch 1	Horn Ring Transfer	Momentary*	Button 1
Slide Switch 2	Horn Ring Transfer	Momentary*	
Slide Switch 3	Siren Dependent Enabled Horn Ring Transfer	Momentary*	
Inputs 1 through 4		Momentary	

* *The **Button Control Module** is not available because the option cannot be changed*

Assigning Siren Functions to Buttons 1–15

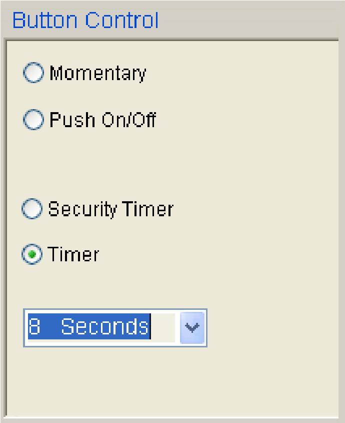
The **Siren** Pane for **Buttons 1–15** and the **Horn Ring** button has a variety of siren functions, including eight siren tones, an electronic air horn, radio rebroadcast, and public address. Two functions for activating siren tones are also available.

NOTE: The **Standby** siren function, which turns off all siren tones, except **Air Horn** and **Manual**, is available with **Buttons 1** and **6**.

To assign a siren function to a button:

1. Click the a button in the range of **1** through **15**.

2. Select how you want the button to operate by clicking an option button in the **Button Control** pane. If you want the button to act as a timer, select the duration from the drop-down list. Some buttons have the **Button Control** option to be **Exclusive**. They turn on a function when pressed and turn off the button that was pressed previously in the same row.



Button Control

○ Momentary

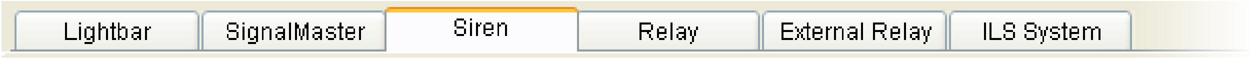
○ Push On/Off

○ Security Timer

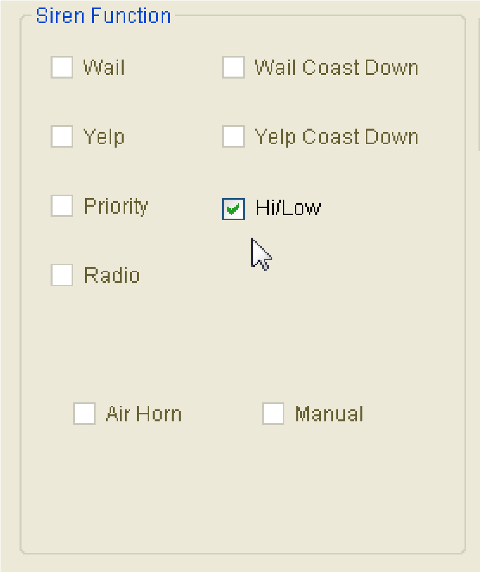
● Timer

8 Seconds

3. If the **Siren** pane is not in front of the other **Device Selection** panes, click the **Siren** tab.

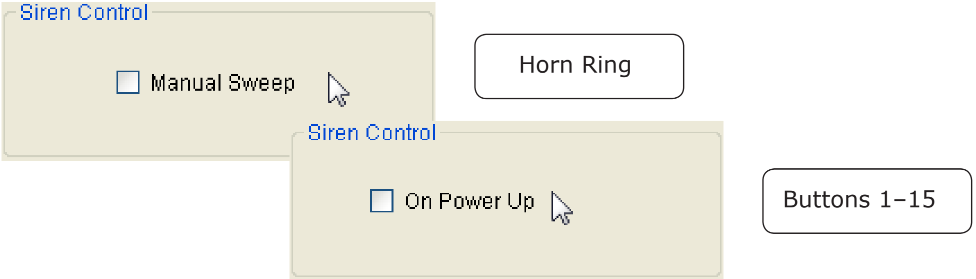

Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System

4. Select a **Siren Function**. A function is dimmed because it is assigned to other buttons. For a description of the functions, see the table "Siren Function (Buttons 1–15) on page 69.


Siren Function

☐ Wail
☐ Wail Coast Down
☐ Yelp
☐ Yelp Coast Down
☐ Priority
☑ Hi/Low
☐ Radio
☐ Air Horn
☐ Manual

5. Select how the siren is controlled by the button. A function is dimmed because it is assigned to other buttons. For a description of the **Siren Control** options, see "Siren Control (Horn Ring)" and "Siren Control (Buttons 1–15)" on page 69.


Siren Control

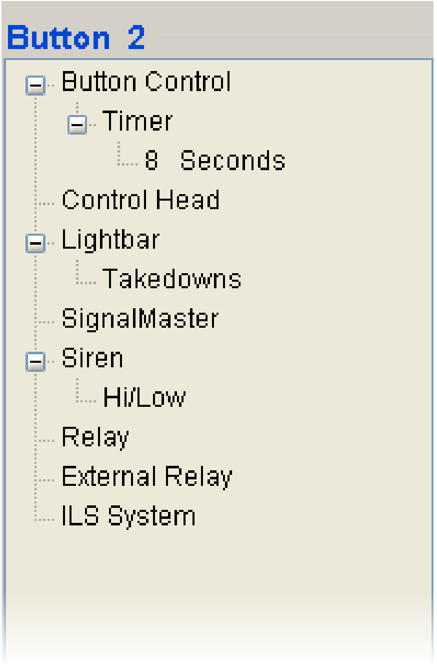
☐ Manual Sweep

Siren Control

☐ On Power Up

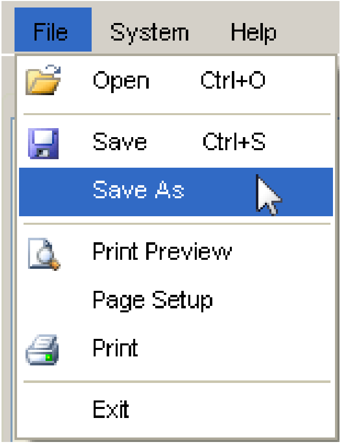
Horn Ring
Buttons 1–15

6. Verify your settings in the **Button Configuration Module**.



Button 2
- Button Control
  - Timer
    - 8 Seconds
- Control Head
- Lightbar
  - Takedowns
- SignalMaster
- Siren
  - Hi/Low
- Relay
- External Relay
- ILS System

7. When you are finished, press **CTRL** + **S**, or select **Save** or **Save As** from the **File** menu, and save the configuration file in the folder you created on your hard drive.



Pop-Up Message: "Overwriting the Default Configuration"

When you select **Save** for the first time, the message "Trying to overwrite protected default configuration" appears. Click **OK**. In the **Save As** dialog box, navigate to the folder you created for your configuration files and save the file under a new name. When you click **Save** again before closing the application, it updates your renamed file by overwriting it.

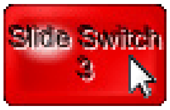
Assigning Siren Functions to Slide Switch 1–3

The control of siren tones, rather than the tones themselves, are selectable functions for the **Slide Switch**. One option is **Siren Dependent Enabled**, which restricts siren activation to the slide switch position you select. For example, if you press a button that is assigned a siren tone, the tone only activates when you place the slide switch in the position that is **Siren Dependent Enabled**.

The **Horn Ring Transfer** option enables the driver to step through each **Siren Function** assigned to the **Horn Ring** in the **Button Configuration Module** with each press of the horn button on the steering wheel. Functions can include siren tones, such as **Yelp** and **Wail**, **Radio** rebroadcast through the siren speakers, and **Public Address**, which transmits the operator's voice through the microphone to the siren speakers.

To assign siren functions to a slide switch button:

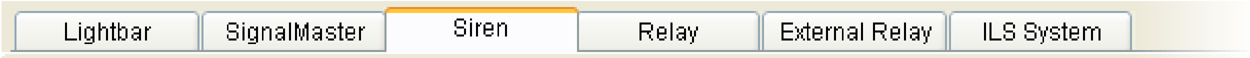
1. Click a **Slide Switch** button.



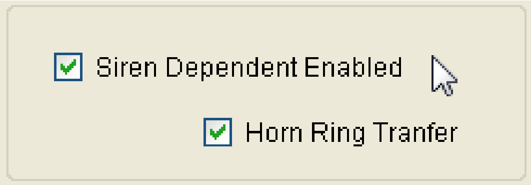
Button Function Limits

The functions for all buttons (except **Slide Switch 3**, which accepts a limit of 20) are limited to a maximum of 10.

2. If the **Siren** pane is not in front of the other **Device Selection** panes, click the **Siren** tab.



3. Select **Siren Dependent** or **Horn Ring Transfer** or both.



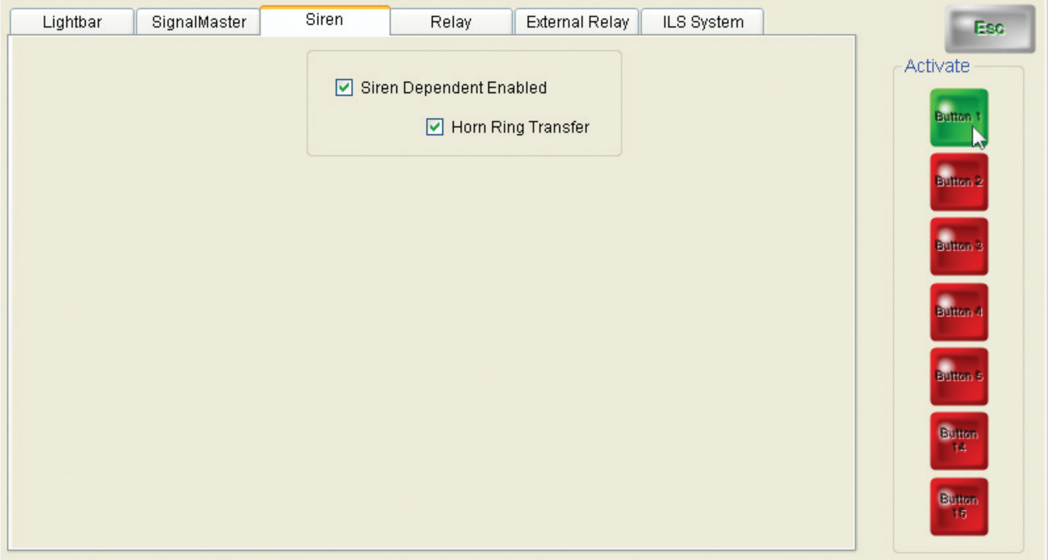
☑ Siren Dependent Enabled

☑ Horn Ring Tranfer

Button Control for the Slide Switch

The **Button Control Module** is unavailable for the **Slide Switch** because each switch position acts as a momentary button.

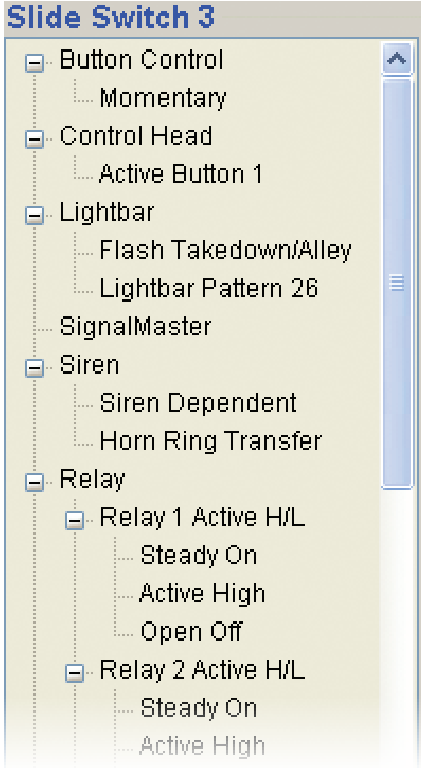
4. Click a button to activate it (green) in the selected slide switch position. Select additional buttons if you want to turn on or off their assigned functions along with the function assigned to the slide switch position.


Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System
Esc
Activate
Button 1
Button 2
Button 3
Button 4
Button 5
Button 14
Button 15

☑ Siren Dependent Enabled

☑ Horn Ring Transfer

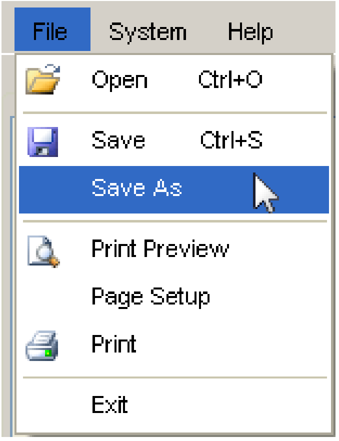
5. Verify your settings in the **Button Configuration Module**.



Slide Switch 3

- Button Control
  - Momentary
- Control Head
  - Active Button 1
- Lightbar
  - Flash Takedown/Alley
  - Lightbar Pattern 26
- SignalMaster
- Siren
  - Siren Dependent
  - Horn Ring Transfer
- Relay
  - Relay 1 Active H/L
    - Steady On
    - Active High
    - Open Off
  - Relay 2 Active H/L
    - Steady On
    - Active High

6. When you are finished, select **Save** or **Save As** from the **File** menu, and save the configuration file in the folder you created on your hard drive.


File
System
Help
Open Ctrl+O
Save Ctrl+S
Save As
Print Preview
Page Setup
Print
Exit

Pop-Up Message: "Overwriting the Default Configuration"

When you select **Save** for the first time, the message "Trying to overwrite protected default configuration" appears. Click **OK**. In the **Save As** dialog box, navigate to the folder you created for your configuration files and save the file under a new name. When you click **Save** again before closing the application, it updates your renamed file by overwriting it.

Assigning Siren Input Control to Inputs 1–4

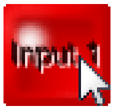
The **Input** buttons are not part of the control pad. Instead, they are "virtual" buttons that represent switches (page 70) connected to the back of the SmartSiren Platinum Siren Amplifier (page 29). **Input 1** and **2** are active low inputs that activate when the input pin is pulled to ground. **Input 3** and **4** are active high inputs that activate when the input pin is pulled to 12 Vdc battery voltage.

Inputs 1–4 are most commonly used for circuits that send a signal to the SmartSiren Platinum system when a condition in the vehicle changes. Changes may include the opening of a trunk or door, a rise in vehicle temperature, or the release of a gun lock. The inputs are often used for police vehicle anti-theft devices, intrusion alarms, and temperature monitoring systems for K9 vehicles. Similarly, the **Park Detect** circuit sends a signal to the SmartSiren Platinum Siren Amplifier when the vehicle transmission is shifted to park or neutral.

The siren pane for the **Inpu**t and **Park Detect** buttons has a **Siren Mute** function that you can select for each button. If the vehicle driver turns on a siren function, such as a siren tone or public address, by pressing a control pad button, **Siren Mute** automatically deactivates all siren functions, except for the **Air Horn** and **Manual** tones, when the **Input** and **Park Detect** circuits are active. Siren functions resume when the circuits are inactive.

To assign **Siren Input Control** to an **Input button** or the **Park Detect** button:

1. Click an **Input Button** or the **Park Detect** button.

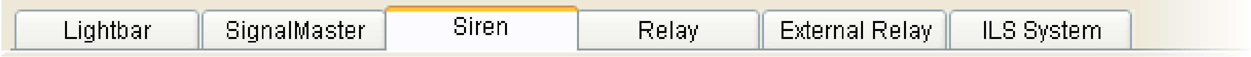


NOTE

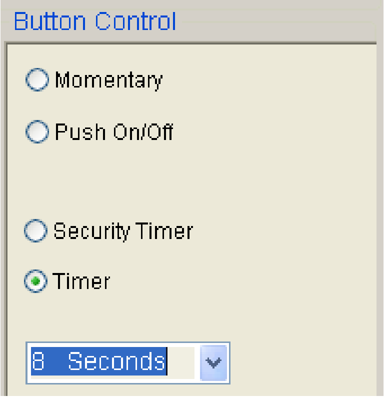
Button Function Limits

The functions for all buttons (except **Slide Switch 3**, which accepts a limit of 20) are limited to a maximum of 10.

2. If the siren pane is not in front of the other **Device Selection** panes, click the **Siren** tab.



3. Select how you want the **Input** circuits to operate. The module is not available for the **Park Detect** circuit because it operates as a momentary switch.



Button Control

○ Momentary

○ Push On/Off

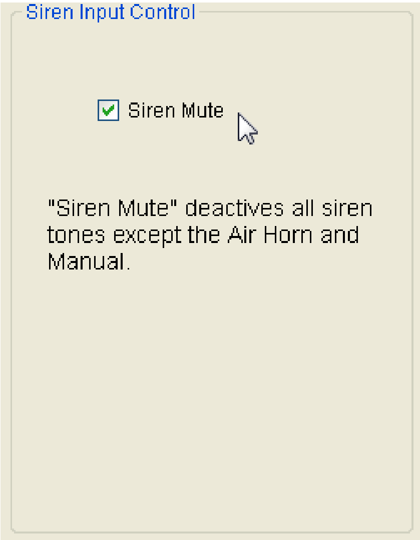
○ Security Timer

● Timer

8 Seconds

4. Select **Siren Mute** if you do not want siren tones to be audible when the input circuit is active or the vehicle transmission is in park or neutral.

Leave the checkbox empty or deselect **Siren Mute** if you want siren functions, such **Public Address**, to be audible when the vehicle is parked or a siren tone to sound as an alarm when a condition in the vehicle changes.

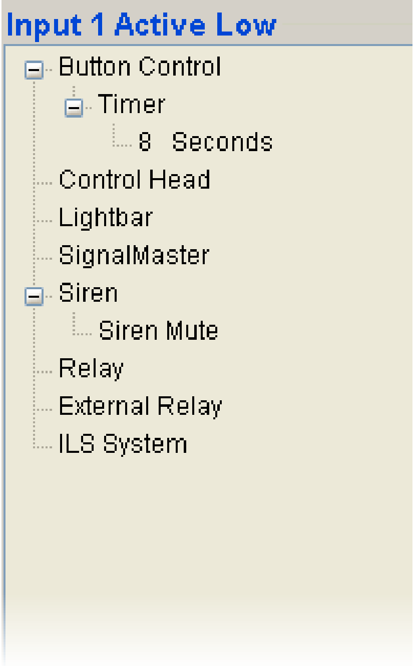


Siren Input Control

☑ Siren Mute

"Siren Mute" deactives all siren tones except the Air Horn and Manual.

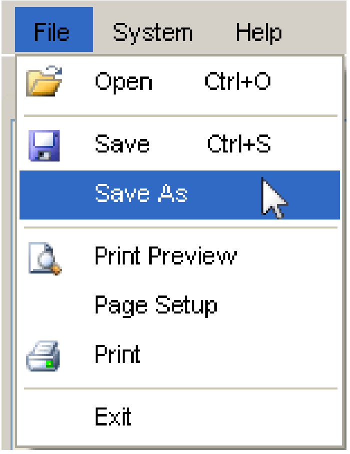
5. Verify your settings in the **Button Configuration Module**.



Input 1 Active Low

- Button Control
  - Timer
    - 8 Seconds
- Control Head
- Lightbar
- SignalMaster
- Siren
  - Siren Mute
- Relay
- External Relay
- ILS System

6. When you are finished, select **Save** or **Save As** from the **File** menu, and save the configuration file in the folder you created on your hard drive.



Pop-Up Message: "Overwriting the Default Configuration"

When you select **Save** for the first time, the message "Trying to overwrite protected default configuration" appears. Click **OK**. In the **Save As** dialog box, navigate to the folder you created for your configuration files and save the file under a new name. When you click **Save** again before closing the application, it updates your renamed file by overwriting it.

Siren Functions: Buttons 1–15

Function	*Description*
☐ Wail	Continuous wailing up-and-down tone.
☐ Wail Coast Down	Wail tone that falls in frequency after the tone is turned off.
☐ Yelp	Continuous rapid warbling tone.
☐ Yelp Coast Down	Rapid warbling tone that falls in frequency after the tone is turned off.
☐ Priority	Continuous rapid yelp tone.
☐ High/Low	Distinctive two-tone sound.
☐ Radio	Incoming radio messages are amplified by the siren and rebroadcast over the siren speaker.
☐ Standby	Turns off all siren tones, except **Air Horn** and **Manual**. Standby is available with **Buttons 1** and **6**.

☐ Air Horn	A traffic-clearing loud blast of sound.
☐ Manual	Peak-and-wail tone.

Siren Control: Buttons 1–15

Function	*Description*
☐ On Power-Up	Each press of the horn button steps through a siren tone—**Wail**, then **Yelp**, and finally **Priority**—until the fourth press turns off the siren tone.
☐ Siren Dependent Disable	Turns off the **Siren Dependent Enable**, which restricts siren activation to a slide switch position.

Siren Control: Horn Ring

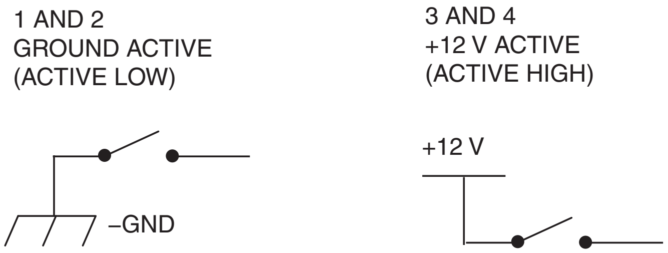
Function	*Description*
☐ Horn Ring On Power-Up	Turns on the Horn Ring Transfer function when the SmartSiren Platinum system is powered up.

Siren Control: Slide Switch 1–3

Function	***Description***
☐ Siren Dependent Enabled	Restricts siren activation to the slide switch position you select. For example, if you press a button that is assigned a siren tone, the tone only activates when you place the slide switch in the position that is **Siren Dependent Enabled**.
☐ Horn Ring Transfer	Available when the horn detection circuit is connected either to pin 2 and pin 8 on the 12-pin connector on the rear of the SmartSiren Platinum Siren Amplifier or to pin 10 on the back of the control pad. The default setting for the slide switch is to transfer the horn ring activation of the siren in **Slide Switch 2** and **3**. Each press of the horn button on the steering wheel cycles through the **Siren Function** selected for the **Horn Ring** button. In addition, **Slide Switch 2** is configured as **Siren Dependent Enabled**.

Siren Control (Inputs 1–4)

Function	***Description***
☐ Siren Mute	When selected for an **Input** circuit, this function deactivates the all siren functions, except **Air Horn** and **Manual**, when the circuit is active.

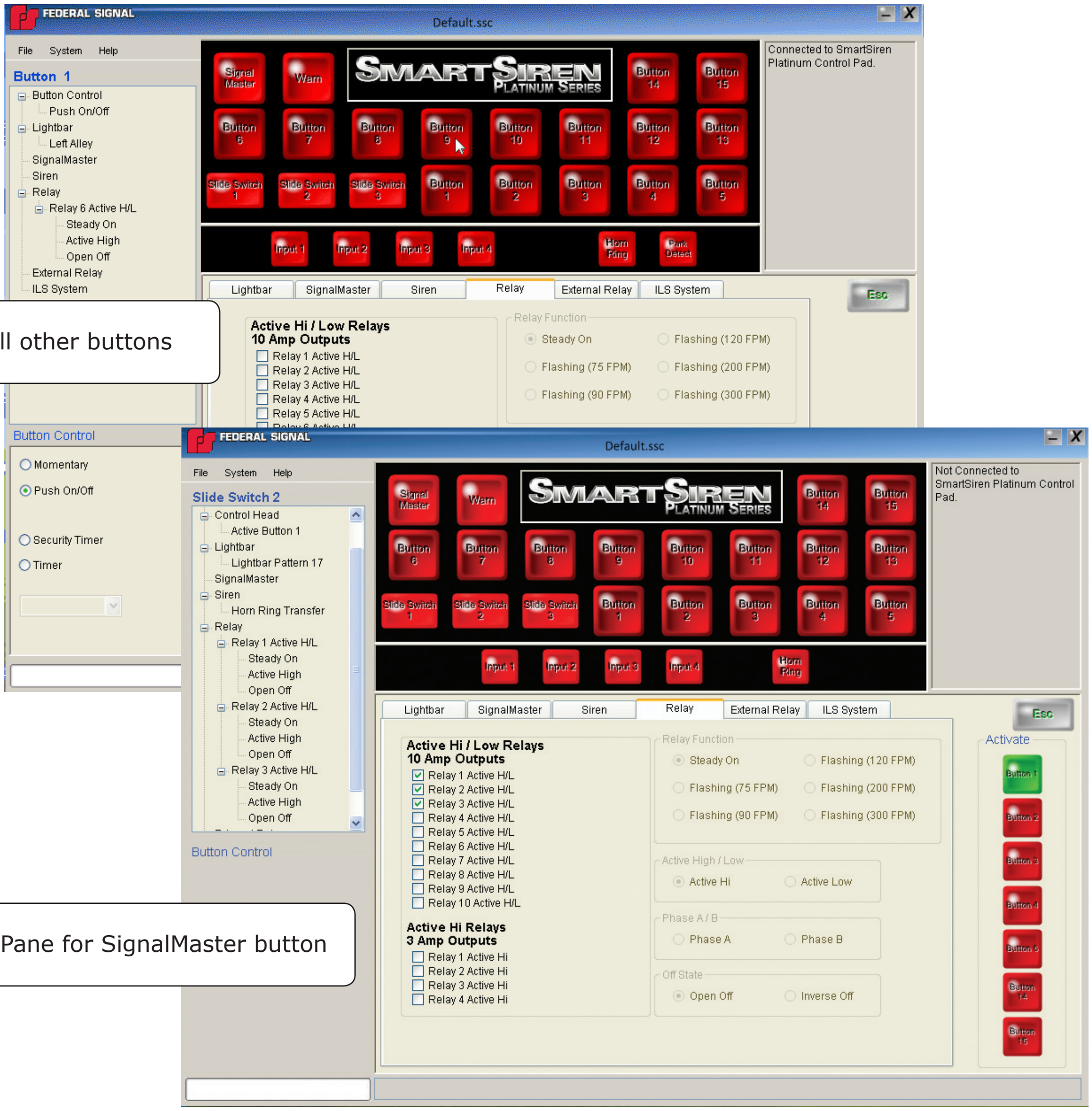


CHAPTER 7

Configuring the Internal Relays

An Overview of the Internal Relays

The internal solid state relays in the **Relay Pane** connect to pins on the back of the SmartSiren Platinum Siren Amplifier (page 79). The ten 10-ampere relays can be configured as active high (pulled to 12 Vdc battery voltage) or active low (pulled to ground). The four three-ampere relays are active high only. The internal relays are commonly used for non-serial controlled devices or small flashing lights.


FEDERAL SIGNAL
Default.ssc
File
System
Help
SMARTSIREN PLATINUM SERIES
Signal Master
Warn
Button 6
Button 7
Button 8
Button 9
Button 10
Button 11
Button 12
Button 13
Button 14
Button 15
Slide Switch 1
Slide Switch 2
Slide Switch 3
Button 1
Button 2
Button 3
Button 4
Button 5
Input 1
Input 2
Input 3
Input 4
Horn Ring
Park Detect
Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System
Esc
Activate

Pane for all other buttons

Button 1

- Button Control
  - Push On/Off
- Lightbar
  - Left Alley
- SignalMaster
- Siren
- Relay
  - Relay 6 Active H/L
    - Steady On
    - Active High
    - Open Off
- External Relay
- ILS System

Connected to SmartSiren Platinum Control Pad.

Active Hi / Low Relays
10 Amp Outputs

☐ Relay 1 Active H/L
☐ Relay 2 Active H/L
☐ Relay 3 Active H/L
☐ Relay 4 Active H/L
☐ Relay 5 Active H/L

Relay Function
● Steady On ○ Flashing (120 FPM)
○ Flashing (75 FPM) ○ Flashing (200 FPM)
○ Flashing (90 FPM) ○ Flashing (300 FPM)

Button Control
○ Momentary
● Push On/Off
○ Security Timer
○ Timer

Pane for SignalMaster button

Slide Switch 2

- Control Head
  - Active Button 1
- Lightbar
  - Lightbar Pattern 17
- SignalMaster
- Siren
  - Horn Ring Transfer
- Relay
  - Relay 1 Active H/L
    - Steady On
    - Active High
    - Open Off
  - Relay 2 Active H/L
    - Steady On
    - Active High
    - Open Off
  - Relay 3 Active H/L
    - Steady On
    - Active High
    - Open Off

Button Control

Not Connected to SmartSiren Platinum Control Pad.

Active Hi / Low Relays
10 Amp Outputs

☑ Relay 1 Active H/L
☑ Relay 2 Active H/L
☑ Relay 3 Active H/L
☐ Relay 4 Active H/L
☐ Relay 5 Active H/L
☐ Relay 6 Active H/L
☐ Relay 7 Active H/L
☐ Relay 8 Active H/L
☐ Relay 9 Active H/L
☐ Relay 10 Active H/L

Active Hi Relays
3 Amp Outputs

☐ Relay 1 Active Hi
☐ Relay 2 Active Hi
☐ Relay 3 Active Hi
☐ Relay 4 Active Hi

Relay Function
● Steady On ○ Flashing (120 FPM)
○ Flashing (75 FPM) ○ Flashing (200 FPM)
○ Flashing (90 FPM) ○ Flashing (300 FPM)

Active High / Low
● Active Hi ○ Active Low

Phase A / B
○ Phase A ○ Phase B

Off State
● Open Off ○ Inverse Off

Relay Default Settings

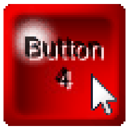
Before you begin, you may want to review these relay default settings. For an keypad view of the default settings, see the table in the appendix on page 115.

Button	Relay	Button Control	Relay Function	Active State	Off State
Button 1	Active H/L Relay 6	Push On/Off	Steady On	Active High	Open Off
Button 2	Active H/L Relay 7	Push On/Off	Steady On	Active High	Open Off
Button 3	Active H/L Relay 8	Push On/Off	Steady On	Active High	Open Off
Button 5	Active H/L Relay 10	Security Timer: 8 Seconds	Steady On	Active High	Open Off
Button 8	Active H/L Relay 9	Push On/Off	Steady On	Active High	Open Off

Configuring the Internal Relays (Buttons 1 to 15 and Inputs)

To assign a relay function to a button:

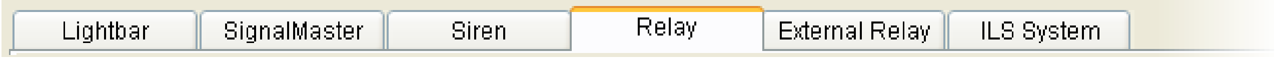
1. Click a button in the **Button Configuration Module**.



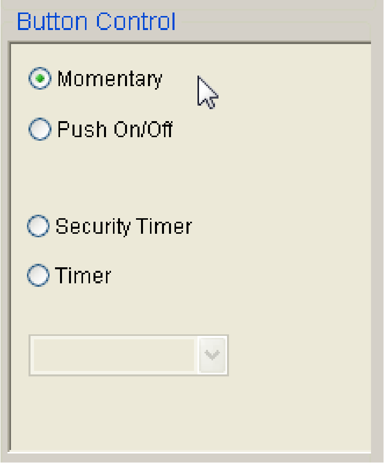
Button Function Limits

The functions for all buttons (except **Slide Switch 3**, which accepts a limit of 20) are limited to a maximum of 10.

2. If the **Relay** pane is not in front of the other **Device Selection** panes, click the **Relay** tab.



3. Select how you want the button to operate the relay by clicking an option button in the **Button Control** pane. If you want the button to act as a timer, select the duration from the drop-down list. **Buttons 1–13** have the additional **Button Control** option to be **Exclusive**. They turn on a function when pressed and turn off the button that was pressed previously in the same row.



Button Control

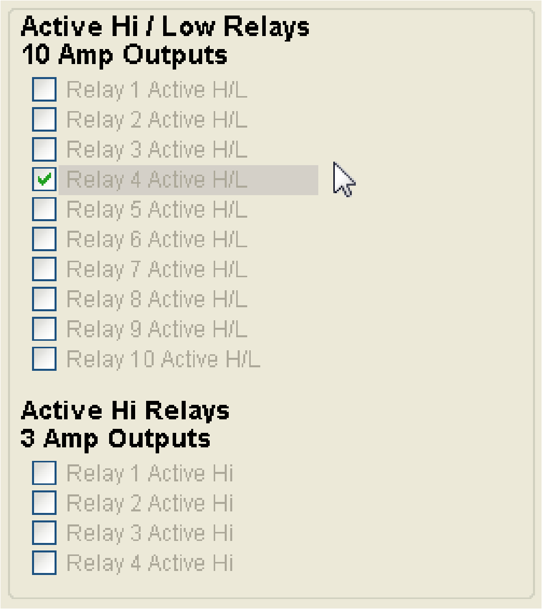
● Momentary

○ Push On/Off

○ Security Timer

○ Timer

4. Select a relay for configuration. The relay is highlighted so that you can easily see it for editing. The other relays dim until you complete the configuration of the relay by selecting the options on the right. For a description of the options, see the tables on pages 79 and 80.



Active Hi / Low Relays
10 Amp Outputs

☐ Relay 1 Active H/L
☐ Relay 2 Active H/L
☐ Relay 3 Active H/L
☑ Relay 4 Active H/L
☐ Relay 5 Active H/L
☐ Relay 6 Active H/L
☐ Relay 7 Active H/L
☐ Relay 8 Active H/L
☐ Relay 9 Active H/L
☐ Relay 10 Active H/L

Active Hi Relays
3 Amp Outputs

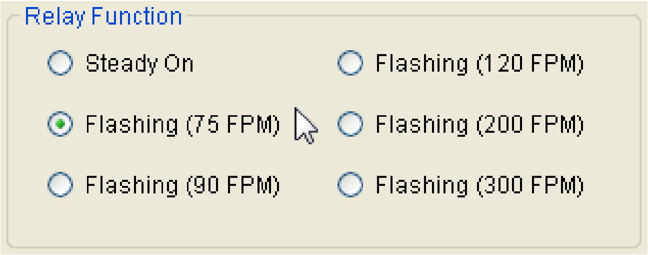
☐ Relay 1 Active Hi
☐ Relay 2 Active Hi
☐ Relay 3 Active Hi
☐ Relay 4 Active Hi

NOTE

"Edit Relay Function?"

If you try to change the settings for a relay output stored in the **Button Configuration Module**, a prompt asks you to verify the change before you continue. Click **Yes** to retain the check next to the relay and clear the selections on the right half of the screen. Click **No** to clear all selections.

5. If the relay controls one or more flashing lights, select **Steady On** or a flash rate.



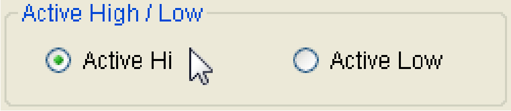
Relay Function

○ Steady On
○ Flashing (120 FPM)
● Flashing (75 FPM)
○ Flashing (200 FPM)
○ Flashing (90 FPM)
○ Flashing (300 FPM)

Changing your relay selections

Selections become available as you progress through the pane. You must complete all selections before you can go back and edit your selections.

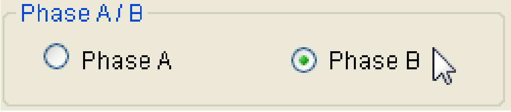
6. Select an active state. **Active High/Low** selections are not available for **Relays 11–14**, which are active high only.



Active High / Low

● Active Hi
○ Active Low

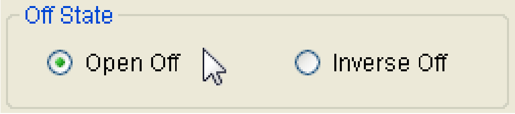
7. If you selected a flash rate for two or more lights, select whether they flash in synch (**Phase A**) or alternate (**Phase B**).



Phase A / B

○ Phase A
● Phase B

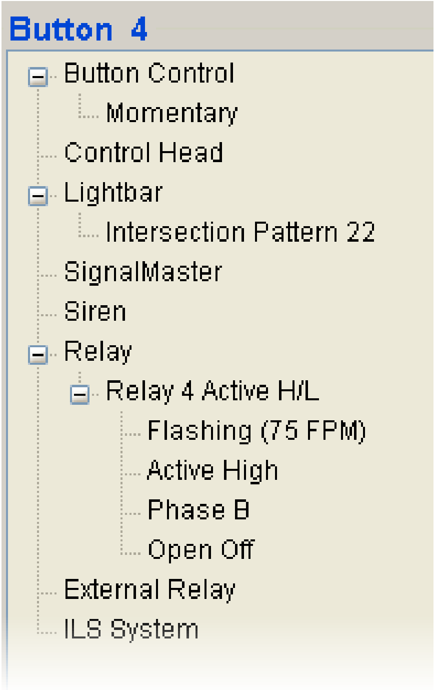
8. Select the **Off State** of the relay.



Off State

● Open Off
○ Inverse Off

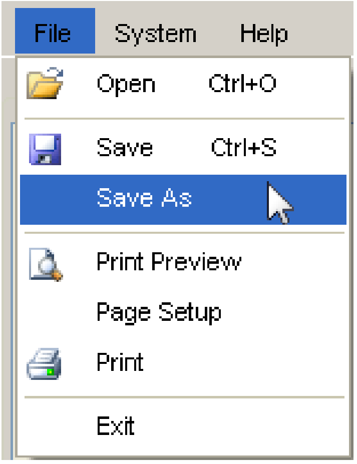
9. Verify your settings in the **Button Configuration Module**.



Button 4

- Button Control
  - Momentary
- Control Head
- Lightbar
  - Intersection Pattern 22
- SignalMaster
- Siren
- Relay
  - Relay 4 Active H/L
    - Flashing (75 FPM)
    - Active High
    - Phase B
    - Open Off
- External Relay
- ILS System

10. When you are finished, select **Save** or **Save As** from the **File** menu, and save the configuration file in the folder you created on your hard drive.

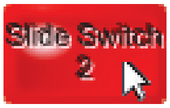


Pop-Up Message: "Overwriting the Default Configuration"

When you select **Save** for the first time, the message "Trying to overwrite protected default configuration" appears. Click **OK**. In the **Save As** dialog box, navigate to the folder you created for your configuration files and save the file under a new name. When you click **Save** again before closing the application, it updates your renamed file by overwriting it.

Configuring the Internal Relays for the Slide Switch Buttons

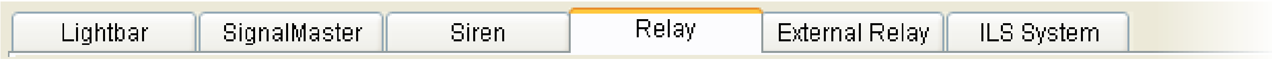
1. Click a **Slide Switch** button.



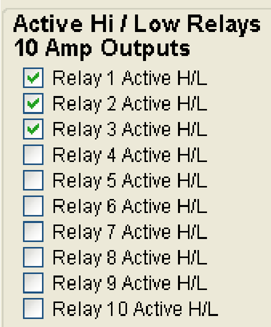
Button Function Limits

The functions for all buttons (except **Slide Switch 3**, which accepts a limit of 20) are limited to a maximum of 10.

2. If the **Siren** pane is not in front of the other **Device Selection** panes, click the **Siren** tab.



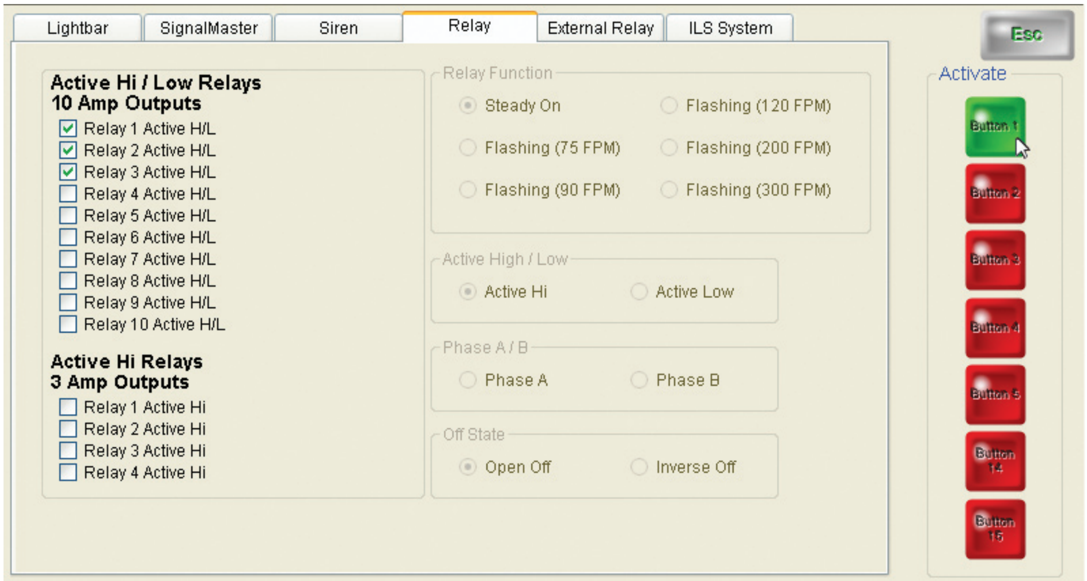
3. Select a relay for configuration. The relay is highlighted so that you can easily see it for editing. The other relays dim until you complete the configuration of the relay by selecting the options on the right. For a description of the options, see the tables on pages 79 and 80.



Active Hi / Low Relays
10 Amp Outputs

☑ Relay 1 Active H/L
☑ Relay 2 Active H/L
☑ Relay 3 Active H/L
☐ Relay 4 Active H/L
☐ Relay 5 Active H/L
☐ Relay 6 Active H/L
☐ Relay 7 Active H/L
☐ Relay 8 Active H/L
☐ Relay 9 Active H/L
☐ Relay 10 Active H/L

4. Click a button to activate it (green) in the selected slide switch position. Select additional buttons if you want to turn on or off their assigned functions along with the function assigned to the slide switch position.


Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System
Esc
Activate
Button 1
Button 2
Button 3
Button 4
Button 5
Button 14
Button 15

Active Hi / Low Relays
10 Amp Outputs

- ☑ Relay 1 Active H/L
- ☑ Relay 2 Active H/L
- ☑ Relay 3 Active H/L
- ☐ Relay 4 Active H/L
- ☐ Relay 5 Active H/L
- ☐ Relay 6 Active H/L
- ☐ Relay 7 Active H/L
- ☐ Relay 8 Active H/L
- ☐ Relay 9 Active H/L
- ☐ Relay 10 Active H/L

Active Hi Relays
3 Amp Outputs

- ☐ Relay 1 Active Hi
- ☐ Relay 2 Active Hi
- ☐ Relay 3 Active Hi
- ☐ Relay 4 Active Hi

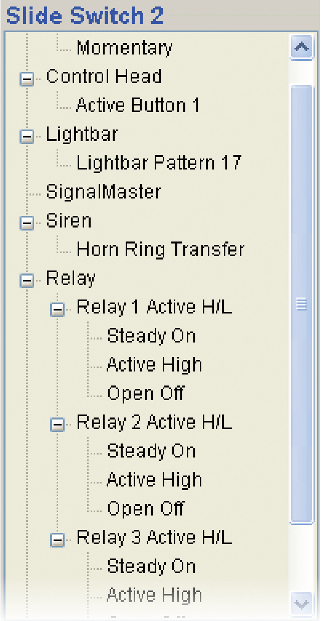
Relay Function
- ● Steady On
- ○ Flashing (120 FPM)
- ○ Flashing (75 FPM)
- ○ Flashing (200 FPM)
- ○ Flashing (90 FPM)
- ○ Flashing (300 FPM)

Active High / Low
- ● Active Hi
- ○ Active Low

Phase A / B
- ○ Phase A
- ○ Phase B

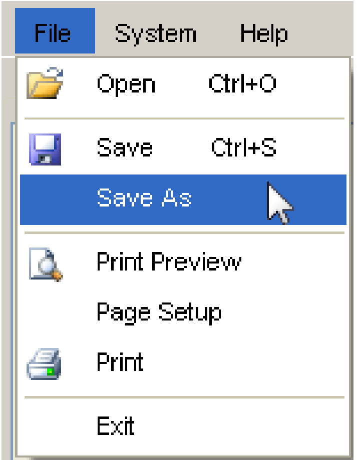
Off State
- ● Open Off
- ○ Inverse Off

5. Verify your settings in the **Button Configuration Module**.



Slide Switch 2
- Momentary
- Control Head
  - Active Button 1
- Lightbar
  - Lightbar Pattern 17
- SignalMaster
- Siren
  - Horn Ring Transfer
- Relay
  - Relay 1 Active H/L
    - Steady On
    - Active High
    - Open Off
  - Relay 2 Active H/L
    - Steady On
    - Active High
    - Open Off
  - Relay 3 Active H/L
    - Steady On
    - Active High

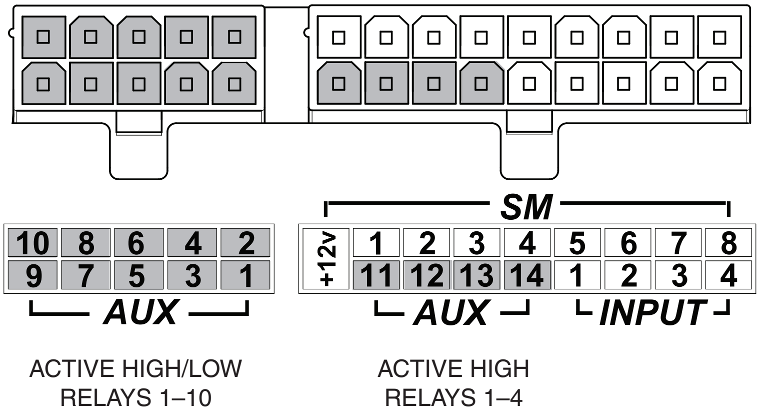
6. When you are finished, select **Save** or **Save As** from the **File** menu, and save the configuration file in the folder you created on your hard drive.


File
System
Help
Open Ctrl+O
Save Ctrl+S
Save As
Print Preview
Page Setup
Print
Exit

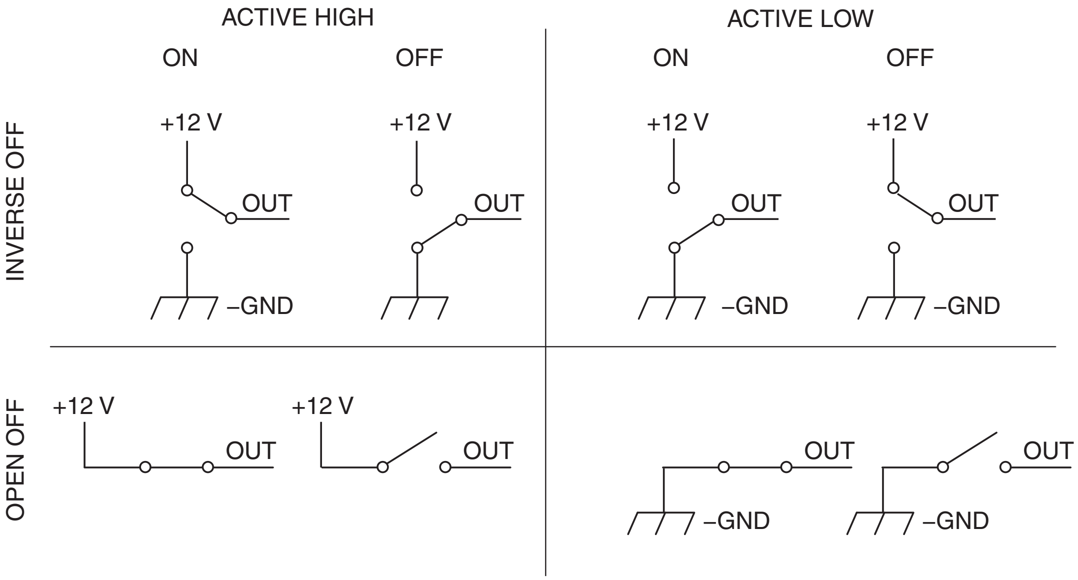
Pop-Up Message: "Overwriting the Default Configuration"

When you select **Save** for the first time, the message "Trying to overwrite protected default configuration" appears. Click **OK**. In the **Save As** dialog box, navigate to the folder you created for your configuration files and save the file under a new name. When you click **Save** again before closing the application, it updates your renamed file by overwriting it.

Pins for Internal Solid State Relay


SM
10
8
6
4
2
9
7
5
3
1
AUX
+12v
1
2
3
4
5
6
7
8
11
12
13
14
1
2
3
4
AUX
INPUT
ACTIVE HIGH/LOW
RELAYS 1–10
ACTIVE HIGH
RELAYS 1–4

Switch Positions for Internal Solid State Relays


ACTIVE HIGH
ON
OFF
ACTIVE LOW
ON
OFF
INVERSE OFF
+12 V
OUT
–GND
OPEN OFF
+12 V
OUT
–GND

Function	Description
○ Active High	The normally closed (NC) relay supplies +12 Vdc during the "on" state.
○ Active Low	The NC relay supplies ground during the "on" state.
○ Open Off	The NC relay is open during the "off" state, a condition similar to an open electromechanical relay.
○ Inverse Off	The NC relay alternates from its former polarity to the other each time it is in the "off" state.

Flash Functions for Perimeter Lights: Internal Relays

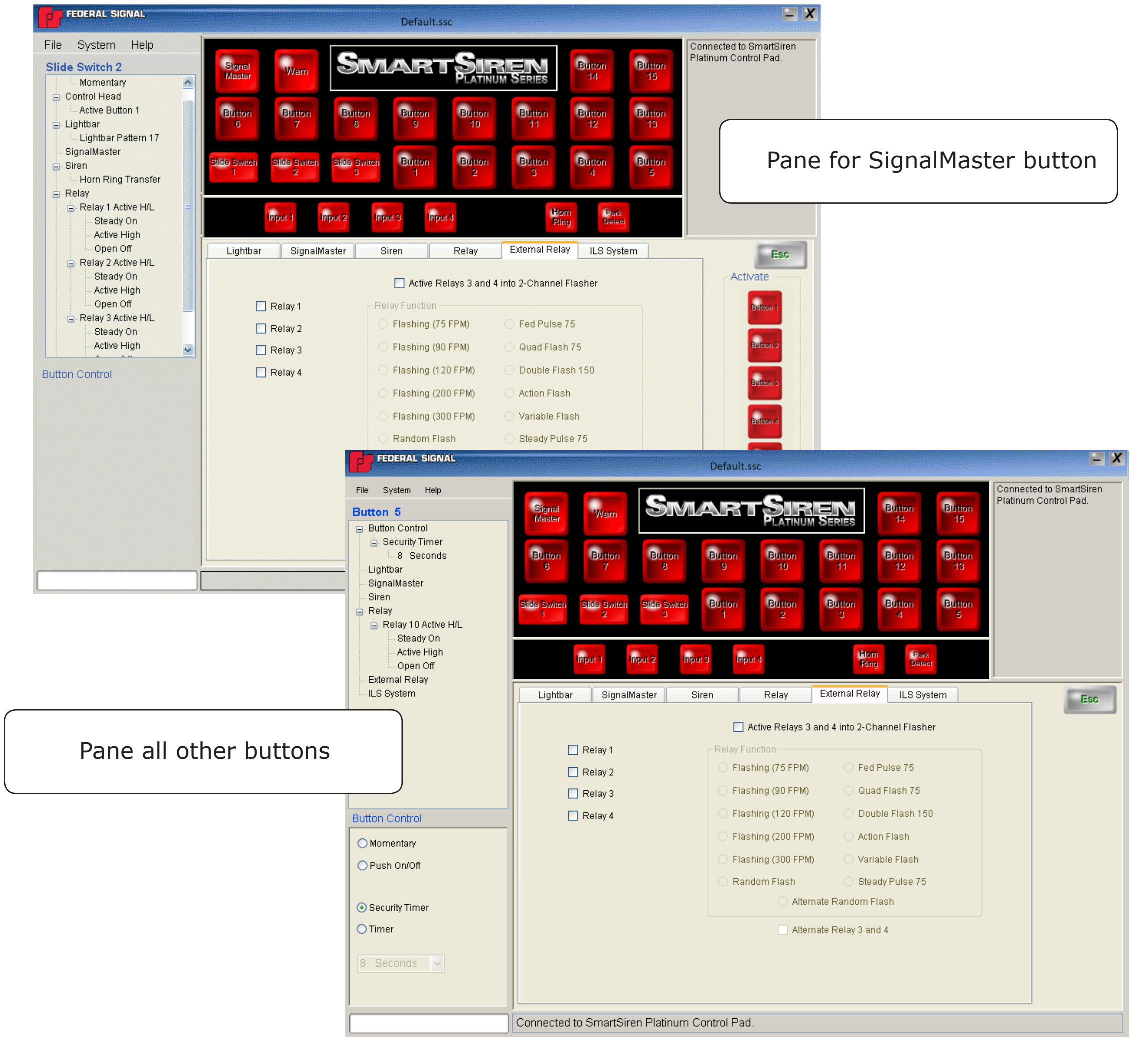
Function	*Description*
○ Flashing (FPM)	Five common flash patterns from 75 FPM to 300 FPM are available for perimeter lights.
○ Steady On	One or more lights stay on and do not flash.
○ Phase A	Two or more lights flash in synch.
○ Phase B	Two or more lights flash alternately with a 90-degree phase shift.

CHAPTER 8

Configuring the External Relay

An Overview of the External Relay

The External Relay is the Federal Signal Model 660100 Relay Module/Two-Channel Flasher. It is used either in place of, or in addition to, the SmartSiren Platinum Siren Amplifier in the Convergence Network. The Model 660100 connects to the SmartSiren Platinum Siren Amplifier through an RS-485 serial cable. The relay controls up to four different devices. Two of the devices can be flashing perimeter lights, such as the Impaxx® or Viper® that are activated into the built-in two-channel flasher. There are 12 selectable flash patterns and two options to alternate the flashing of two or more lights. For more information, see Federal Signal Doc. No. 2562431.


FEDERAL SIGNAL
Default.ssc
File
System
Help
Slide Switch 2
Momentary
Control Head
Active Button 1
Lightbar
Lightbar Pattern 17
SignalMaster
Siren
Horn Ring Transfer
Relay
Relay 1 Active H/L
Steady On
Active High
Open Off
Relay 2 Active H/L
Steady On
Active High
Open Off
Relay 3 Active H/L
Steady On
Active High
Button Control
Signal Master
Warn
SMARTSIREN PLATINUM SERIES
Button 1
Button 2
Button 3
Button 4
Button 5
Button 6
Button 7
Button 8
Button 9
Button 10
Button 11
Button 12
Button 13
Button 14
Button 15
Slide Switch 1
Slide Switch 2
Slide Switch 3
Input 1
Input 2
Input 3
Input 4
Horn Ring
Park Detect
Connected to SmartSiren Platinum Control Pad.
Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System
Esc
Activate
☐ Active Relays 3 and 4 into 2-Channel Flasher
☐ Relay 1
☐ Relay 2
☐ Relay 3
☐ Relay 4
Relay Function
○ Flashing (75 FPM)
○ Flashing (90 FPM)
○ Flashing (120 FPM)
○ Flashing (200 FPM)
○ Flashing (300 FPM)
○ Random Flash
○ Fed Pulse 75
○ Quad Flash 75
○ Double Flash 150
○ Action Flash
○ Variable Flash
○ Steady Pulse 75
○ Alternate Random Flash
☐ Alternate Relay 3 and 4
Button 5
Button Control
Security Timer
8 Seconds
Lightbar
SignalMaster
Siren
Relay
Relay 10 Active H/L
Steady On
Active High
Open Off
External Relay
ILS System
Button Control
○ Momentary
○ Push On/Off
● Security Timer
○ Timer
8 Seconds

Connected to SmartSiren Platinum Control Pad.

Pane for SignalMaster button

Pane all other buttons

Configuring the External Relay

There are no default settings for the **External Relay**.

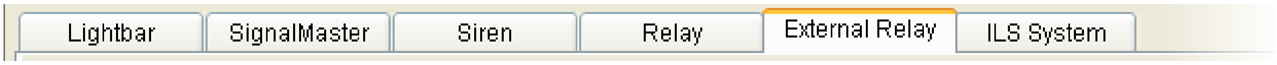
To assign an **External Relay** function to a button:

1. Click a button in the **Button Configuration Module**.

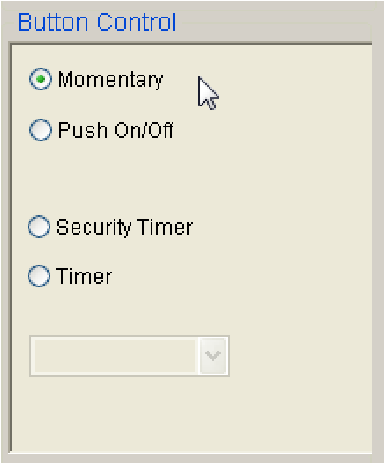
Button Function Limits

The functions for all buttons (except **Slide Switch 3**, which accepts a limit of 20) are limited to a maximum of 10.

2. If the **External Relay** pane is not in front of the other **Device Selection** panes, click the **External Relay** tab.



3. Select how you want the button to operate by clicking an option button in the **Button Control** pane. If you want the button to act as a timer, select the duration from the drop-down list. Some buttons have the additional **Button Control** option to be **Exclusive**. They turn on a function when pressed and turn off the button that was pressed previously in the same row.



Button Control

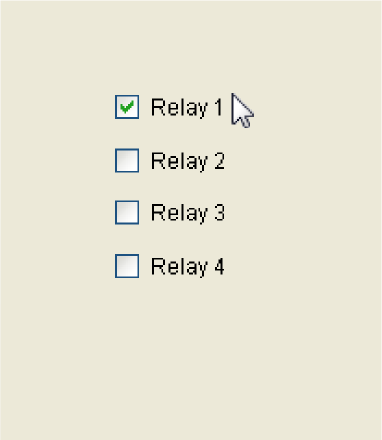
● Momentary

○ Push On/Off

○ Security Timer

○ Timer

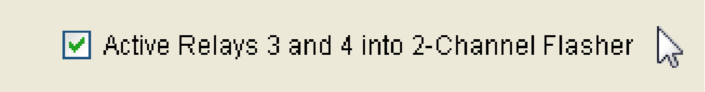
4. Select one relay per button. If you are using the two-channel flasher, skip this step and select the option **Activate Relays 3 and 4 into 2-Channel Flasher**.



☑ Relay 1
☐ Relay 2
☐ Relay 3
☐ Relay 4

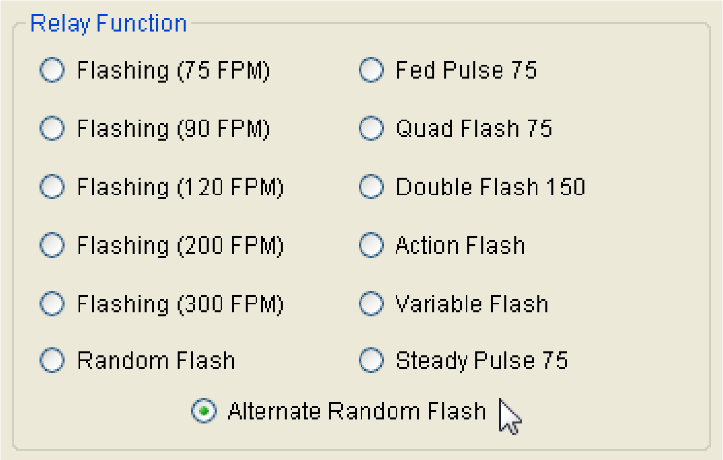
Relays are available when **Activate Relays 3 and 4 into 2-Channel Flasher** is not selected.

Option for small flashing lights connected to Relays 3 and 4.



☑ Active Relays 3 and 4 into 2-Channel Flasher

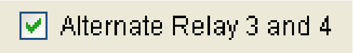
5. If you have selected the two-channel flasher, select a **Relay Function** flash pattern. For information on these options, see the table on page 88.



Relay Function

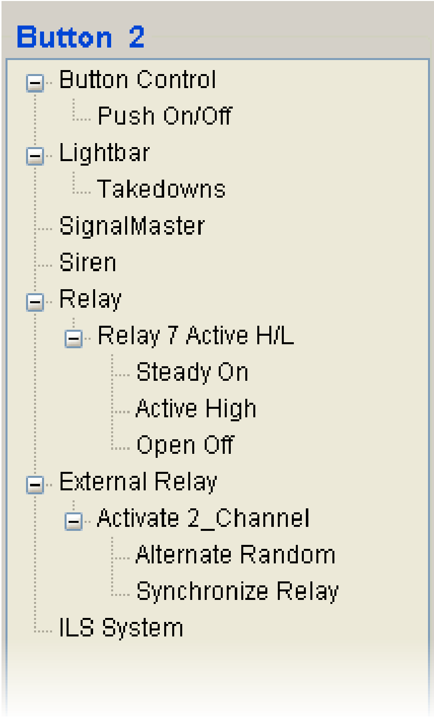
○ Flashing (75 FPM)
○ Flashing (90 FPM)
○ Flashing (120 FPM)
○ Flashing (200 FPM)
○ Flashing (300 FPM)
○ Random Flash
○ Fed Pulse 75
○ Quad Flash 75
○ Double Flash 150
○ Action Flash
○ Variable Flash
○ Steady Pulse 75
● Alternate Random Flash

6. If you have selected a **Relay Function** flash pattern for a series of two or more lights, select if you want the lights to alternately flash the pattern.



☑ Alternate Relay 3 and 4

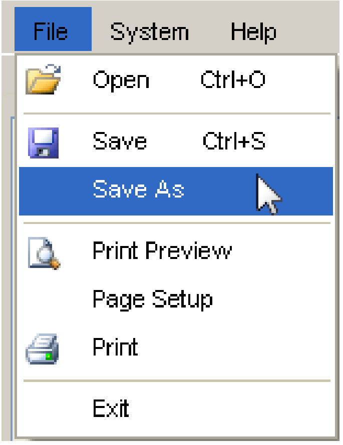
7. Verify your settings in the **Button Configuration Module**.



Button 2

- Button Control
  - Push On/Off
- Lightbar
  - Takedowns
- SignalMaster
- Siren
- Relay
  - Relay 7 Active H/L
    - Steady On
    - Active High
    - Open Off
- External Relay
  - Activate 2_Channel
    - Alternate Random
    - Synchronize Relay
- ILS System

8. When you are finished, press **CTRL** + **S**, or select **Save** or **Save As** from the **File** menu, and save the configuration file in the folder you created on your hard drive.

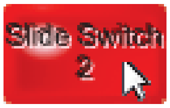


Pop-Up Message: "Overwriting the Default Configuration"

When you select **Save** for the first time, the message "Trying to overwrite protected default configuration" appears. Click **OK**. In the **Save As** dialog box, navigate to the folder you created for your configuration files and save the file under a new name. When you click **Save** again before closing the application, it updates your renamed file by overwriting it.

Configuring the External Relay for the Slide Switch Buttons

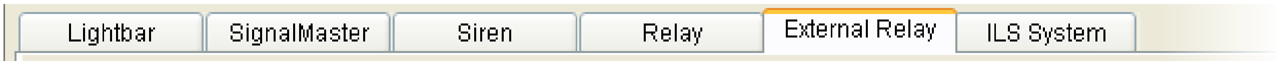
1. Click a **Slide Switch** button.



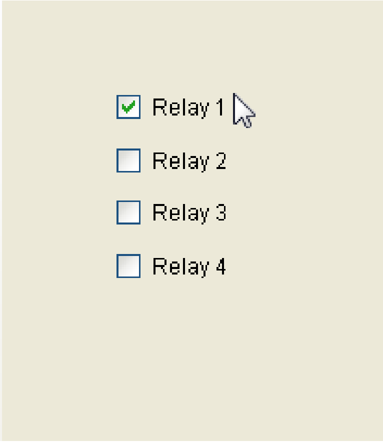
Button Function Limits

The functions for all buttons (except **Slide Switch 3**, which accepts a limit of 20) are limited to a maximum of 10.

2. If the **External Relay** pane is not in front of the other **Device Selection** panes, click the **External Relay** tab.



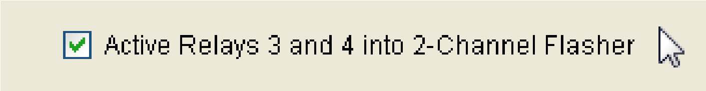
3. Select a relay for configuration. The relay is highlighted so that you can easily see it for editing. The other relays dim until you complete the configuration of the relay by selecting the options on the right. For a description of the options, see the tables on pages 75 and 76.



☑ Relay 1
☐ Relay 2
☐ Relay 3
☐ Relay 4

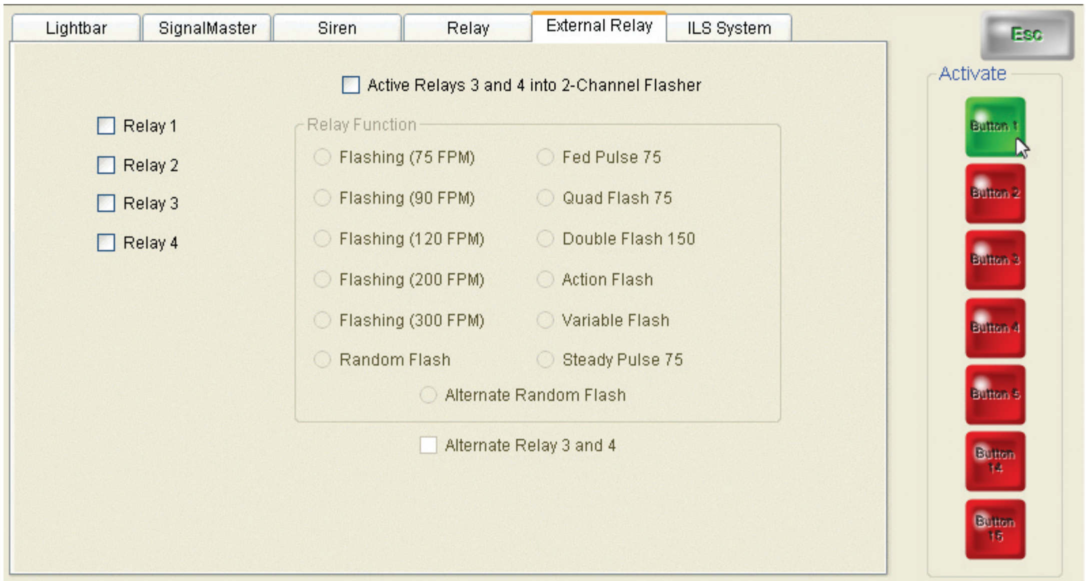
Relays are available when **Activate Relays 3 and 4 into 2-Channel Flasher** is not selected.

Option for small flashing lights connected to Relays 3 and 4.



☑ Active Relays 3 and 4 into 2-Channel Flasher

4. Click a button to activate it (green) in the selected slide switch position. Select additional buttons if you want to turn on or off their assigned functions along with the function assigned to the slide switch position.


Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System
Esc
Activate
Button 1
Button 2
Button 3
Button 4
Button 5
Button 14
Button 15

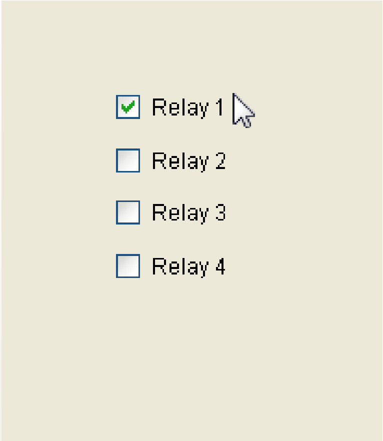
☐ Active Relays 3 and 4 into 2-Channel Flasher

☐ Relay 1
☐ Relay 2
☐ Relay 3
☐ Relay 4

Relay Function
○ Flashing (75 FPM)
○ Flashing (90 FPM)
○ Flashing (120 FPM)
○ Flashing (200 FPM)
○ Flashing (300 FPM)
○ Random Flash
○ Fed Pulse 75
○ Quad Flash 75
○ Double Flash 150
○ Action Flash
○ Variable Flash
○ Steady Pulse 75
○ Alternate Random Flash

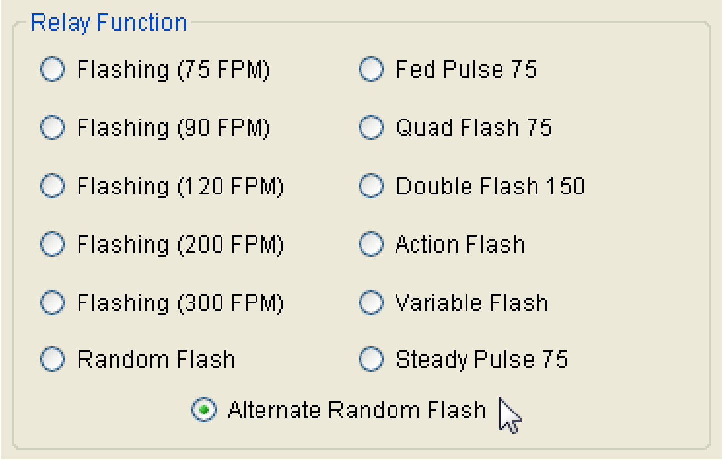
☐ Alternate Relay 3 and 4

5. Select a relay. If you are using the two-channel flasher, skip this step and select the option **Activate Relays 3 and 4 into 2-Channel Flasher**.



☑ Relay 1
☐ Relay 2
☐ Relay 3
☐ Relay 4

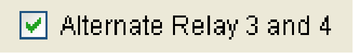
6. If you have selected the two-channel flasher, select a **Relay Function** flash pattern. For information on these options, see the table on page 88.



Relay Function

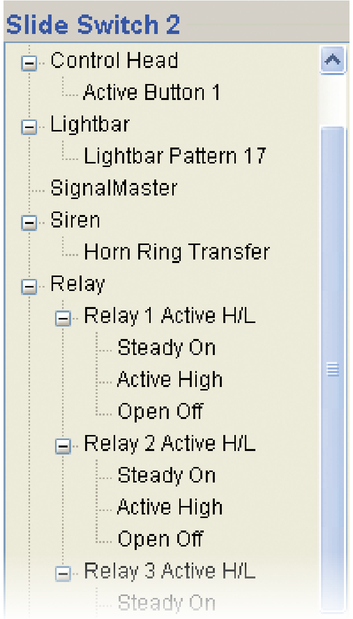
○ Flashing (75 FPM)
○ Flashing (90 FPM)
○ Flashing (120 FPM)
○ Flashing (200 FPM)
○ Flashing (300 FPM)
○ Random Flash
○ Fed Pulse 75
○ Quad Flash 75
○ Double Flash 150
○ Action Flash
○ Variable Flash
○ Steady Pulse 75
● Alternate Random Flash

7. If you have selected a **Relay Function** flash pattern for a series of two or more lights, select if you want the lights to alternately flash the pattern.



☑ Alternate Relay 3 and 4

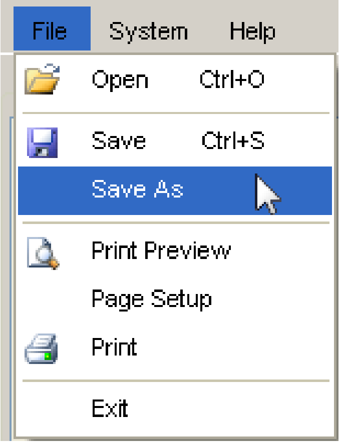
8. Verify your settings in the **Button Configuration Module**.



Slide Switch 2

- Control Head
  - Active Button 1
- Lightbar
  - Lightbar Pattern 17
- SignalMaster
- Siren
  - Horn Ring Transfer
- Relay
  - Relay 1 Active H/L
    - Steady On
    - Active High
    - Open Off
  - Relay 2 Active H/L
    - Steady On
    - Active High
    - Open Off
  - Relay 3 Active H/L
    - Steady On

9. When you are finished, press **CTRL** + **S**, or select **Save** or **Save As** from the **File** menu, and save the configuration file in the folder you created on your hard drive.



Pop-Up Message: "Overwriting the Default Configuration"

When you select **Save** for the first time, the message "Trying to overwrite protected default configuration" appears. Click **OK**. In the **Save As** dialog box, navigate to the folder you created for your configuration files and save the file under a new name. When you click **Save** again before closing the application, it updates your renamed file by overwriting it.

Flash Functions for Perimeter Lights: External Relay

Function	*Description*
○ Flashing (FPM)	Five common flash patterns from 75 FPM to 300 FPM are available for perimeter lights. Unique flash patterns, such as FedPulse 75 and Action Flash, vary depending on whether the Federal Signal light is a solid color model or split color combination model. For more details, refer to the instructions included with the lights.
☐ Alternate Relay 3 and 4	Alternates the flashing of the lights connected to **Relays 3** and **4**.

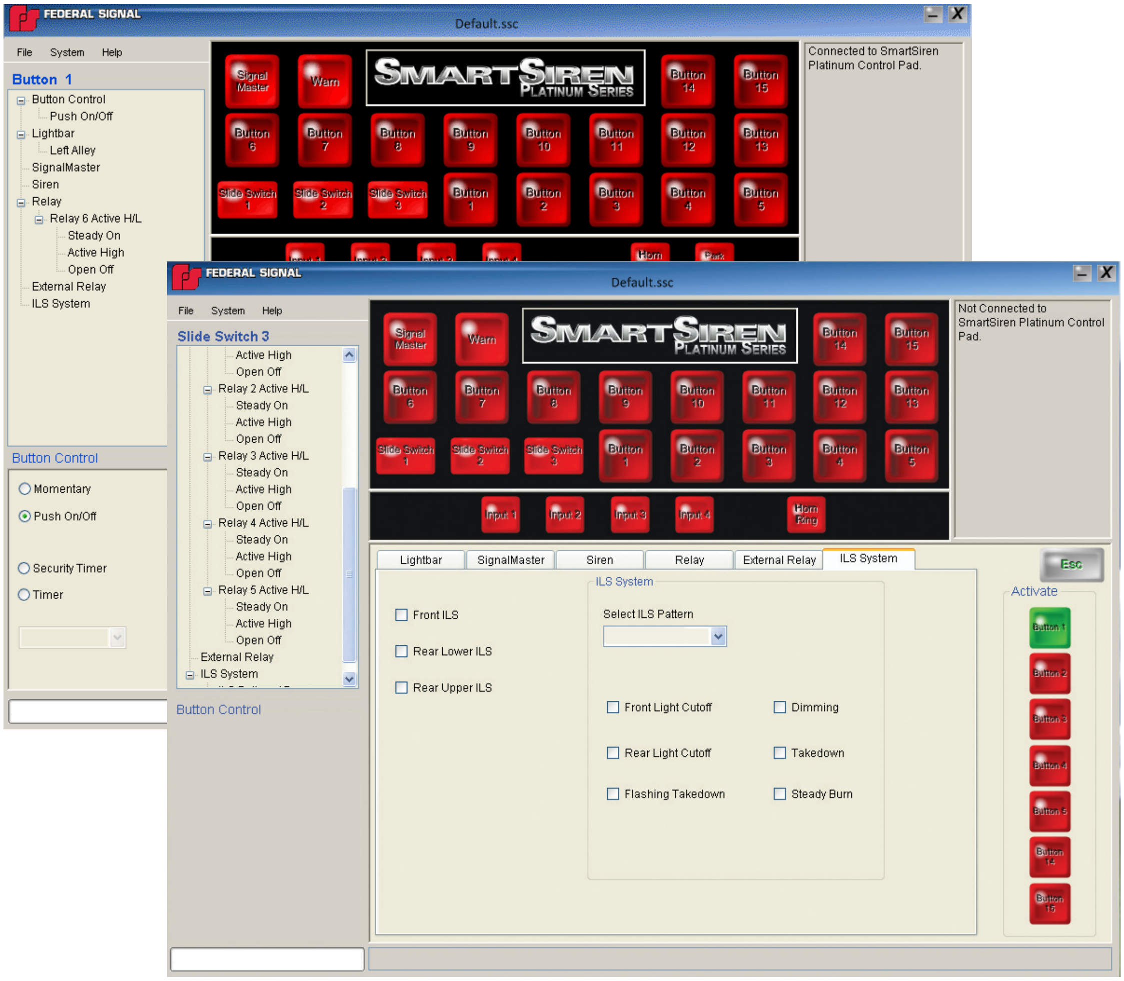
CHAPTER 9

Configuring the ILS System

An Overview of the ILS System

The ILS System comprises three models of single-level LED lightbars—**Front ILS**, **Rear Lower ILS**, and **Rear Upper ILS**—that mount on the inside of the windshield of an emergency vehicle. They have many of the features of a full-featured Federal Signal Lightbar including a library of flash patterns, Front and Rear Light Cut-Off, Takedown lights, Steady Burn LEDs and SignalMaster capability (see “Chapter 5: Configuring the SignalMaster” on page 44).

Each ILS lightbar is connected to the Convergence Network through a CAT5 serial communication cable that connects to the back of the SmartSiren Platinum Siren Amplifier.


FEDERAL SIGNAL
Default.ssc
File
System
Help
Button 1
Button Control
Push On/Off
Lightbar
Left Alley
SignalMaster
Siren
Relay
Relay 6 Active H/L
Steady On
Active High
Open Off
External Relay
ILS System
Button Control
Momentary
Push On/Off
Security Timer
Timer
Signal Master
Warn
SMART SIREN PLATINUM SERIES
Button 14
Button 15
Button 6
Button 7
Button 8
Button 9
Button 10
Button 11
Button 12
Button 13
Slide Switch 1
Slide Switch 2
Slide Switch 3
Button 1
Button 2
Button 3
Button 4
Button 5
Input 1
Input 2
Input 3
Input 4
Horn Ring
Slide Switch 3
Relay 2 Active H/L
Relay 3 Active H/L
Relay 4 Active H/L
Relay 5 Active H/L
Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System
Front ILS
Rear Lower ILS
Rear Upper ILS
Select ILS Pattern
Front Light Cutoff
Dimming
Rear Light Cutoff
Takedown
Flashing Takedown
Steady Burn
Esc
Activate

Connected to SmartSiren Platinum Control Pad.

Not Connected to SmartSiren Platinum Control Pad.

Verify features before configuring the lightbar

Federal Signal ILS lightbars may not have all the features available in the lightbar pane. To make the software configuration of the control pad quick and accurate, determine what hardware features and DIP switch settings are in the lightbar before you begin. Refer to "Setting Configuration Options" for the Rear ILS lightbar in Doc. No. 2562422 and "Setting Configuration Options" for the Front ILS lightbar in Doc. No. 2562423.

Configuring the ILS System

There are no default settings for the **ILS System**.

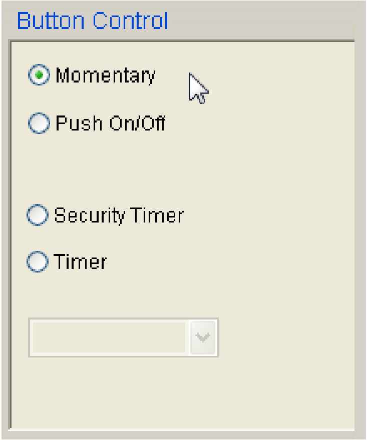
To assign an **ILS System** function to a button:

1. Click a button in the **Button Configuration Module**.

Button Function Limits

The functions for all buttons (except **Slide Switch 3**, which accepts a limit of 20) are limited to a maximum of 10.

2. Select how you want the button to operate by clicking an option button in the **Button Control** pane. If you want the button to act as a timer, select the duration from the drop-down list. **Buttons 1–13** have the additional **Button Control** option to be **Exclusive**. They turn on a function when pressed and turn off the button that was pressed previously in the same row.



Button Control

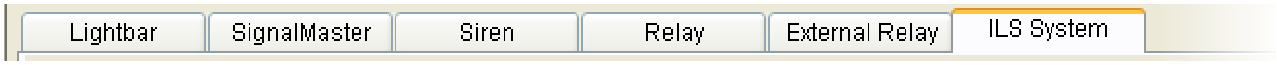
● Momentary

○ Push On/Off

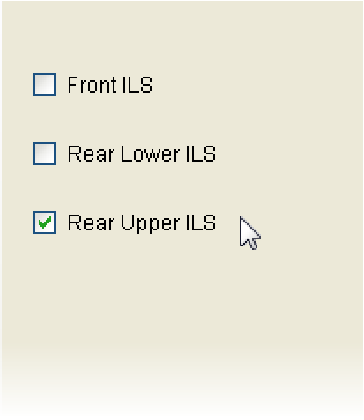
○ Security Timer

○ Timer

3. If the **ILS System** pane is not in front of the other **Device Selection** panes, click the **ILS System** tab.


Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System

4. Select the ILS lightbars in the Convergence Network. The dimmed options for the **ILS System** on right side of the pane become available when you select the type of lightbar that uses them. For a description of the ILS System functions, see the table on page 97.

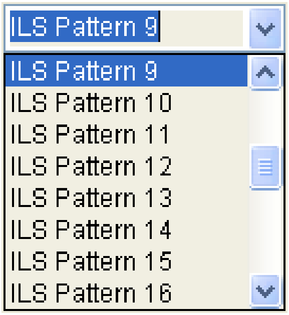


☐ Front ILS

☐ Rear Lower ILS

☑ Rear Upper ILS

5. Select a flash pattern for the **ILS System**. All ILS lightbars assigned to the button flash the same selected pattern.



ILS Pattern 9

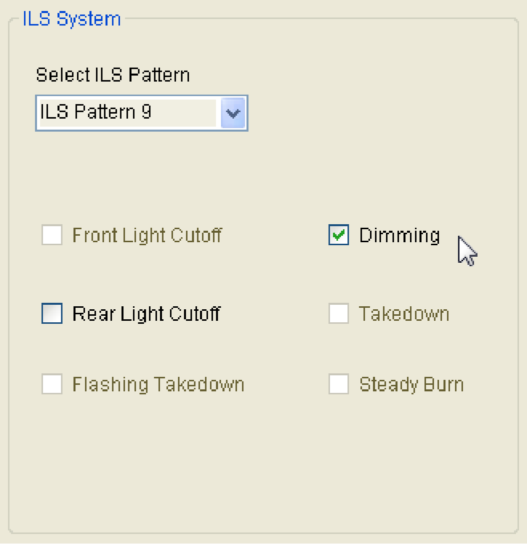
ILS Pattern 9
ILS Pattern 10
ILS Pattern 11
ILS Pattern 12
ILS Pattern 13
ILS Pattern 14
ILS Pattern 15
ILS Pattern 16

Available flash patterns

Some lightbars have fewer or more flash patterns than are available in the drop-down list. Lightbars that have fewer patterns are restricted to the last pattern available in the pattern library within the lightbar. Lightbars that have more patterns are restricted to the number available in the drop-down list.

For more information about flash patterns, consult the instruction manual for your model of lightbar.

6. Select functions for the **ILS System**. All ILS lightbars assigned to the button will operate the function.

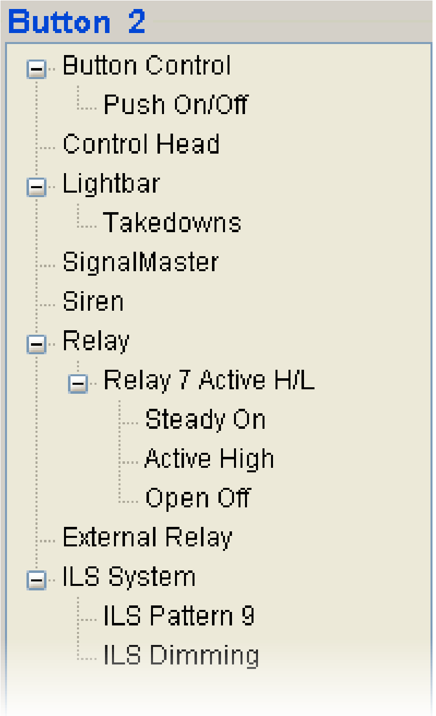


ILS System

Select ILS Pattern: ILS Pattern 9

☐ Front Light Cutoff
☑ Dimming
☐ Rear Light Cutoff
☐ Takedown
☐ Flashing Takedown
☐ Steady Burn

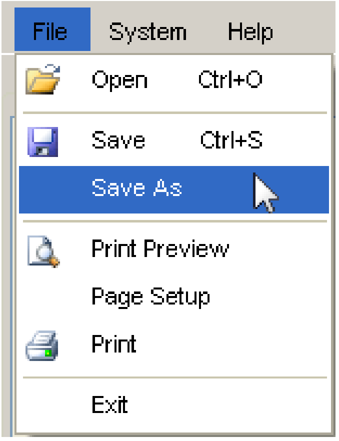
7. Verify your settings in the **Button Configuration Module**.



Button 2

- Button Control
  - Push On/Off
- Control Head
- Lightbar
  - Takedowns
- SignalMaster
- Siren
- Relay
  - Relay 7 Active H/L
    - Steady On
    - Active High
    - Open Off
- External Relay
- ILS System
  - ILS Pattern 9
  - ILS Dimming

8. When you are finished, press **CTRL** + **S**, or select **Save** or **Save As** from the **File** menu, and save the configuration file in the folder you created on your hard drive.

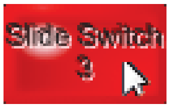

File
System
Help
Open Ctrl+O
Save Ctrl+S
Save As
Print Preview
Page Setup
Print
Exit

Pop-Up Message: "Overwriting the Default Configuration"

When you select **Save** for the first time, the message "Trying to overwrite protected default configuration" appears. Click **OK**. In the **Save As** dialog box, navigate to the folder you created for your configuration files and save the file under a new name. When you click **Save** again before closing the application, it updates your renamed file by overwriting it.

Configuring the ILS System for the Slide Switch Buttons

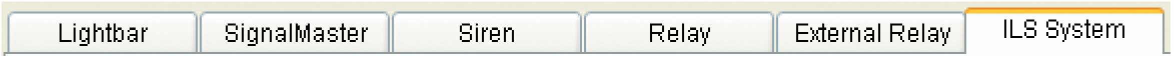
1. Click a **Slide Switch** button.


Slide Switch
3

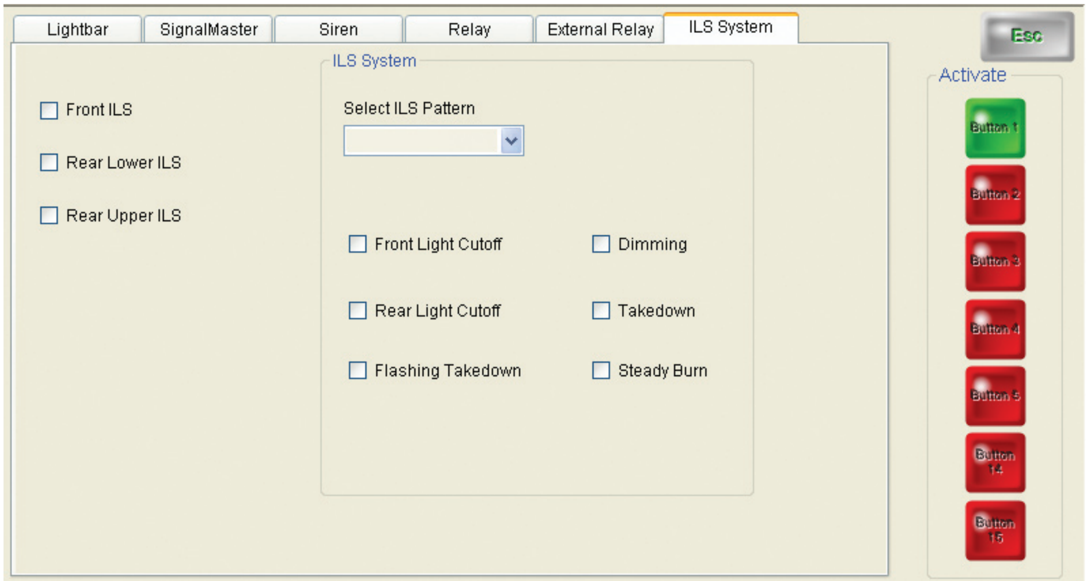
Button Function Limits

The functions for all buttons (except **Slide Switch 3**, which accepts a limit of 20) are limited to a maximum of 10.

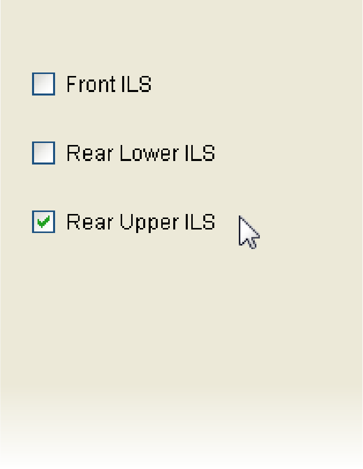
2. If the **ILS** pane is not in front of the other **Device Selection** panes, click the **ILS** tab.


Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System

3. Click a button to activate it (green) in the selected slide switch position. Select additional buttons if you want to turn on or off their assigned functions along with the function assigned to the slide switch position.

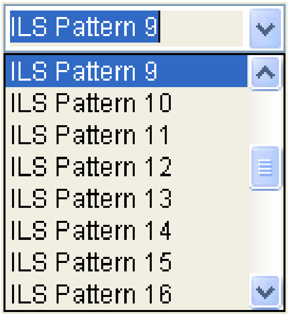

Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System
Esc
ILS System
☐ Front ILS
☐ Rear Lower ILS
☐ Rear Upper ILS
Select ILS Pattern
☐ Front Light Cutoff
☐ Dimming
☐ Rear Light Cutoff
☐ Takedown
☐ Flashing Takedown
☐ Steady Burn
Activate
Button 1
Button 2
Button 3
Button 4
Button 5
Button 14
Button 15

4. Select the ILS lightbars in the Convergence Network. The dimmed options for the **ILS System** on right side of the pane become available when you select the type of lightbar that uses them. For a description of the function, see the table on page 97.



☐ Front ILS
☐ Rear Lower ILS
☑ Rear Upper ILS

5. Select a flash pattern for the **ILS System**. All ILS lightbars assigned to the button will flash the same pattern.

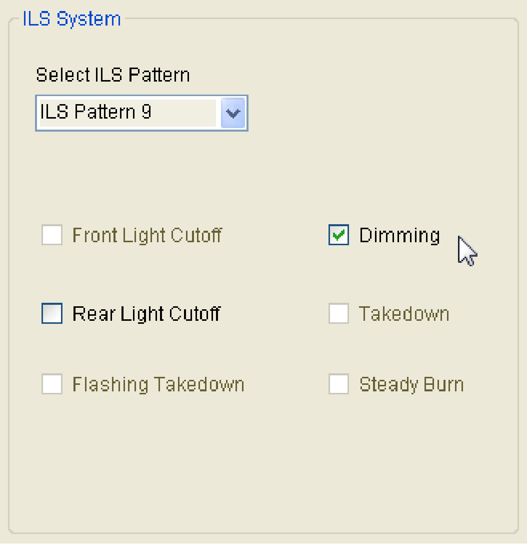

ILS Pattern 9
ILS Pattern 9
ILS Pattern 10
ILS Pattern 11
ILS Pattern 12
ILS Pattern 13
ILS Pattern 14
ILS Pattern 15
ILS Pattern 16

Available flash patterns

Some lightbars have fewer or more flash patterns than are available in the drop-down list. Lightbars that have fewer patterns are restricted to the last pattern available in the pattern library within the lightbar. Lightbars that have more patterns are restricted to the number available in the drop-down list.

For more information about flash patterns, consult the instruction manual for your model of lightbar.

6. Select functions for the **ILS System**. All ILS lightbars assigned to the button will operate the function.

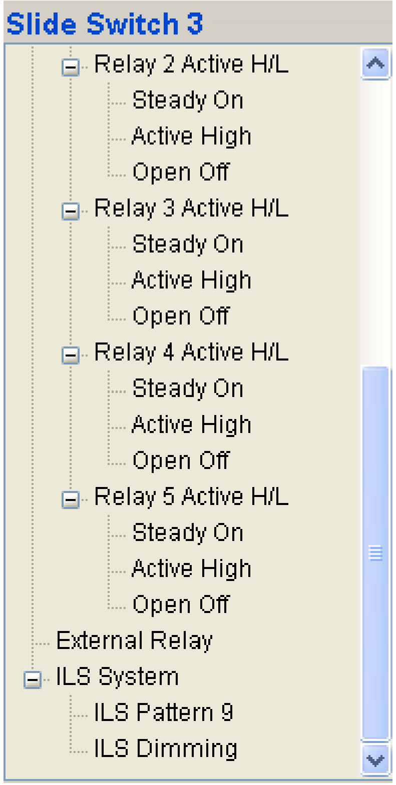


ILS System

Select ILS Pattern: ILS Pattern 9

☐ Front Light Cutoff
☑ Dimming
☐ Rear Light Cutoff
☐ Takedown
☐ Flashing Takedown
☐ Steady Burn

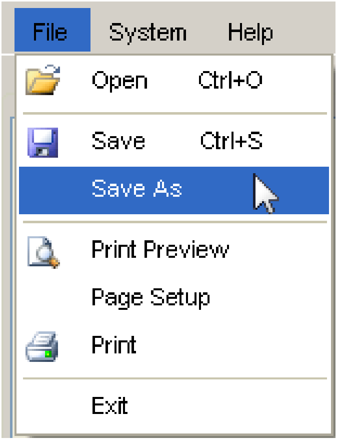
7. Verify your settings in the **Button Configuration Module**.



Slide Switch 3

- Relay 2 Active H/L
  - Steady On
  - Active High
  - Open Off
- Relay 3 Active H/L
  - Steady On
  - Active High
  - Open Off
- Relay 4 Active H/L
  - Steady On
  - Active High
  - Open Off
- Relay 5 Active H/L
  - Steady On
  - Active High
  - Open Off
- External Relay
- ILS System
  - ILS Pattern 9
  - ILS Dimming

8. When you are finished, press **CTRL** + **S**, or select **Save** or **Save As** from the **File** menu, and save the configuration file in the folder you created on your hard drive.


File
System
Help
Open Ctrl+O
Save Ctrl+S
Save As
Print Preview
Page Setup
Print
Exit

ILS System Functions

Function	***Description***
☐ Front ILS	A single-level LED lightbar that mounts on the inside of the front windshield. It uses ROC (Reliable On Board Circuitry) technology, and Solaris® S2 reflectors.
☐ Rear Lower ILS	A single-level LED lightbar that mounts on the rear deck of an emergency vehicle. It uses ROC (Reliable On Board Circuitry) technology, and Solaris® S2 reflectors.
☐ Rear Upper ILS	A single-level LED lightbar that mounts on the upper part of the rear windshield of an emergency vehicle. It uses ROC (Reliable On Board Circuitry) technology, and Solaris® S2 reflectors.

☐ Front Light Cutoff	Turns off light on the front of the lightbar.
☐ Rear Light Cutoff	Turns off light on the rear of the lightbar.
☐ Flashing Takedown	Flashes the takedown and alley lights.
☐ Dimming	Dims the lights approximately 50 percent to prevent blinding approaching drivers at night.
☐ Takedown	White light directed to the front of the vehicle.
☐ Steady Burn	One or more lights that stay on and do not flash.

CHAPTER 10

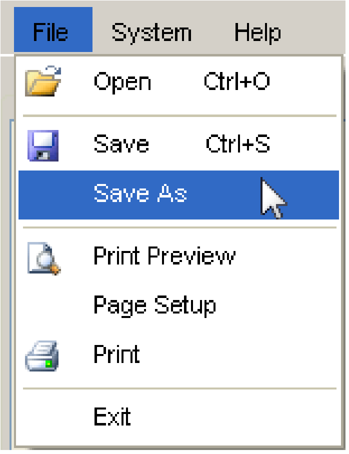
Completing the Control Pad Configuration

Final Steps in Completing the Configuration

When you are finished configuring the SmartSiren Platinum control pad and network devices, there a few more steps before the SmartSiren Platinum system is ready to be put to work. To successfully complete your task, the topics in this chapter should be followed in the order they are presented.

Saving Your Completed Configuration File

If you have not already saved your configuration file, select **Save** or **Save As** from the **File** Menu, and save the configuration file in the folder you created on your hard drive.

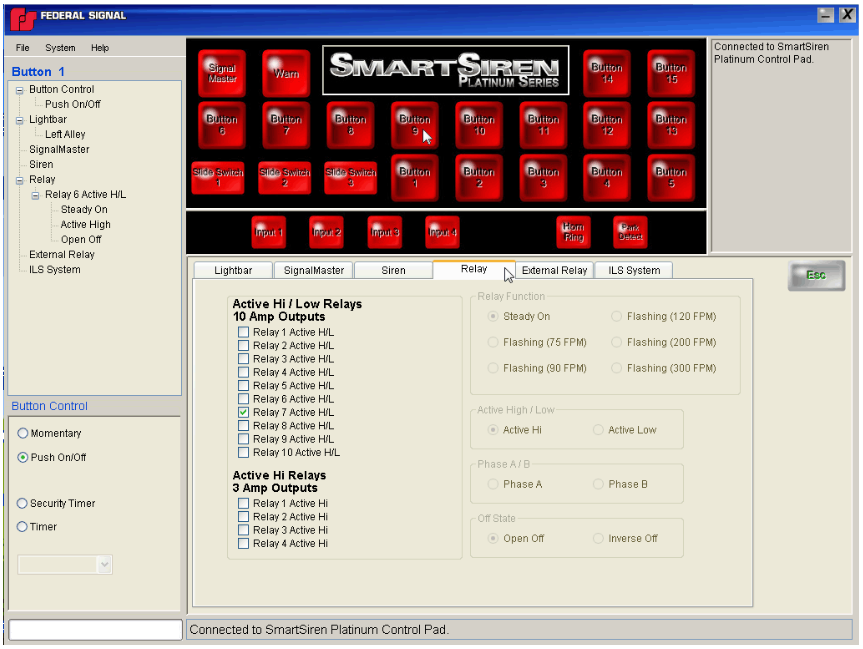

File
System
Help
Open Ctrl+O
Save Ctrl+S
Save As
Print Preview
Page Setup
Print
Exit

Printing a Record of Your Configuration File

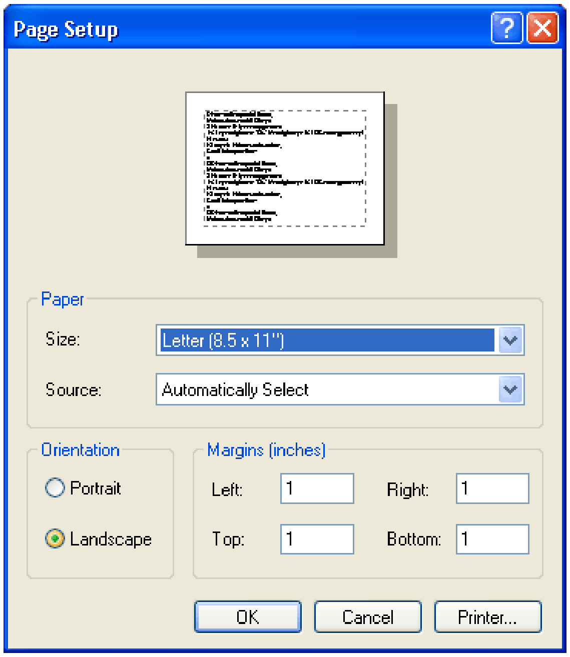
The **Print** command in the **File Menu** prints a copy of the configuration window for the button and assigned device you select.

To print a record of your configuration:

1. Click a button and the tab of a device assigned to it to display settings for the button.

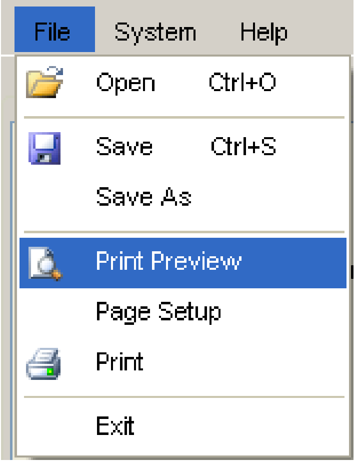

FEDERAL SIGNAL
File
System
Help
Button 1
Button Control
Push On/Off
Lightbar
Left Alley
SignalMaster
Siren
Relay
Relay 6 Active H/L
Steady On
Active High
Open Off
External Relay
ILS System
Button Control
Momentary
Push On/Off
Security Timer
Timer
Signal Master
Warn
SMARTSIREN PLATINUM SERIES
Button 14
Button 15
Button 6
Button 7
Button 8
Button 9
Button 10
Button 11
Button 12
Button 13
Slide Switch 1
Slide Switch 2
Slide Switch 3
Button 1
Button 2
Button 3
Button 4
Button 5
Input 1
Input 2
Input 3
Input 4
Horn Ring
Park Detect
Connected to SmartSiren Platinum Control Pad.
Lightbar
SignalMaster
Siren
Relay
External Relay
ILS System
Esc
Active Hi / Low Relays
10 Amp Outputs
Relay 1 Active H/L
Relay 2 Active H/L
Relay 3 Active H/L
Relay 4 Active H/L
Relay 5 Active H/L
Relay 6 Active H/L
Relay 7 Active H/L
Relay 8 Active H/L
Relay 9 Active H/L
Relay 10 Active H/L
Active Hi Relays
3 Amp Outputs
Relay 1 Active Hi
Relay 2 Active Hi
Relay 3 Active Hi
Relay 4 Active Hi
Relay Function
Steady On
Flashing (120 FPM)
Flashing (75 FPM)
Flashing (200 FPM)
Flashing (90 FPM)
Flashing (300 FPM)
Active High / Low
Active Hi
Active Low
Phase A / B
Phase A
Phase B
Off State
Open Off
Inverse Off
Connected to SmartSiren Platinum Control Pad.

2. Select **Page Setup** to open a dialogue box of print settings. Select the paper size, orientation, margins, and printer, then click **OK**.

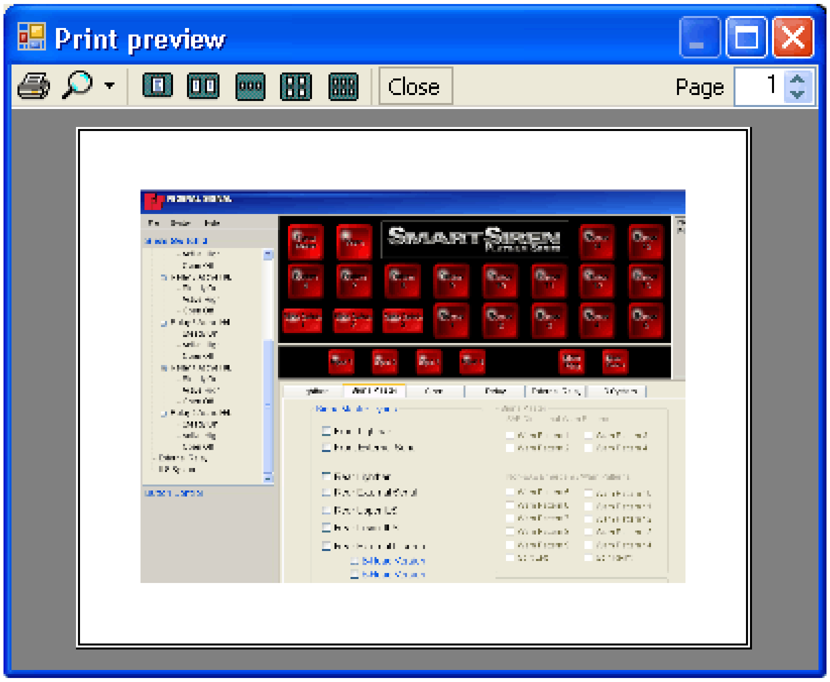

Page Setup
Paper
Orientation
Portrait
Margins (inches)
OK
Cancel
Printer...

Size: Letter (8.5 x 11")
Source: Automatically Select
● Landscape
Left: 1
Right: 1
Top: 1
Bottom: 1

3. In the **File** menu select **Print Preview** to display a preview of the page layout of the window you want to print.


File
System
Help
Open Ctrl+O
Save Ctrl+S
Save As
Print Preview
Page Setup
Print
Exit

4. If the page displays correctly, click the print icon the upper left corner. Continue printing the window for each button until you have a complete record.

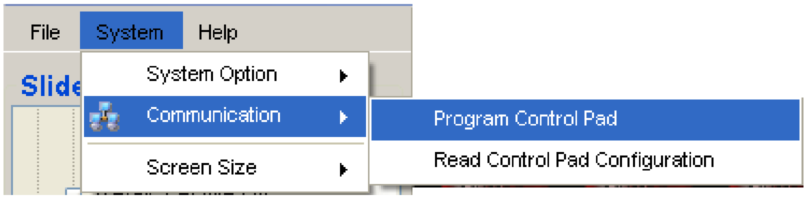

Print preview
Close
Page
1
SMARTSIREN

Uploading the Configuration File to the Control Pad

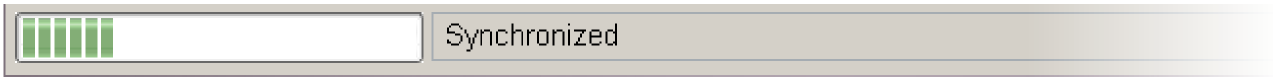
Uploading the configuration file stores the file in the flash memory of the control pad.

To upload a configuration file:

1. In the **System** menu select **Program Control Head**.


File
System
Help
Slide
System Option
Communication
Screen Size
Program Control Pad
Read Control Pad Configuration

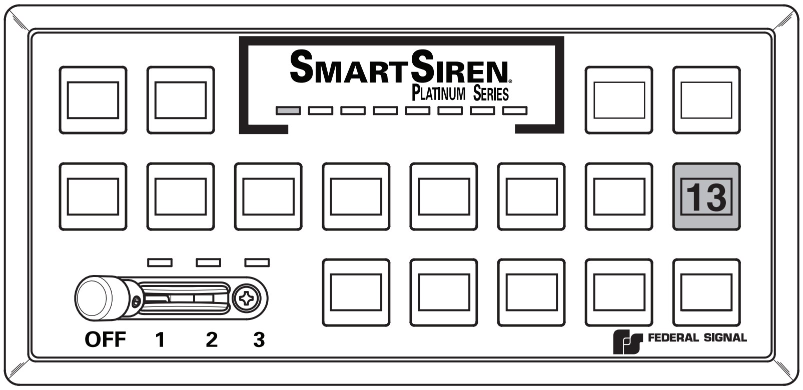
2. Wait until the progress bar fills from left to right. When the upload is complete, the file is stored in the flash memory of the control pad.


Synchronized

Putting the Control Pad into Operation Mode

For the SmartSiren Platinum system to follow the instructions in the configuration file, the control pad must be put into Operation Mode.

1. Press **Button 13**. The first LED blinks and the control pad beeps to indicate you are in Programming Mode.


SMARTSIREN
PLATINUM SERIES
13
OFF
1
2
3
FEDERAL SIGNAL

2. Remove 12 Vdc power from the control pad, then reapply it. The control pad is in Operation Mode and ready to control the SmartSiren Platinum system.

Testing the SmartSiren Platinum System

⚠ WARNING

SOUND HAZARD

All effective sirens and horns produce loud sounds (120 dB) that may cause permanent hearing loss. Always minimize your exposure to the sound of the siren and horn and wear hearing protection. Do not sound the siren or horn indoors or in enclosed areas where you and others will be exposed to the sound.

⚠ WARNING

LIGHT HAZARD

To be an effective warning device, an emergency warning system produces bright light that can be hazardous to your eyesight when viewed at a close range. Do not stare directly into this lighting product at a close range or permanent damage to your eyesight may occur.

After programming the control pad, test the emergency warning system to ensure that it is operating properly. Also test all vehicle functions, including horn operation, vehicle safety functions, and vehicle lighting systems to ensure proper operation. Ensure that the installation has not affected the vehicle operation or changed any vehicle safety functions or circuits. After testing is complete, provide a copy of these instructions to the instructional staff and all operating personnel.

Do not test the sound and light system of the vehicle while driving. Operating the vehicle warning systems may pose a hazard to the operator and other drivers if the systems do not function as expected. Test the vehicle only in a controlled environment.

APPENDIX

IP Connection Troubleshooting, Control-Pad Default Configuration and Worksheet

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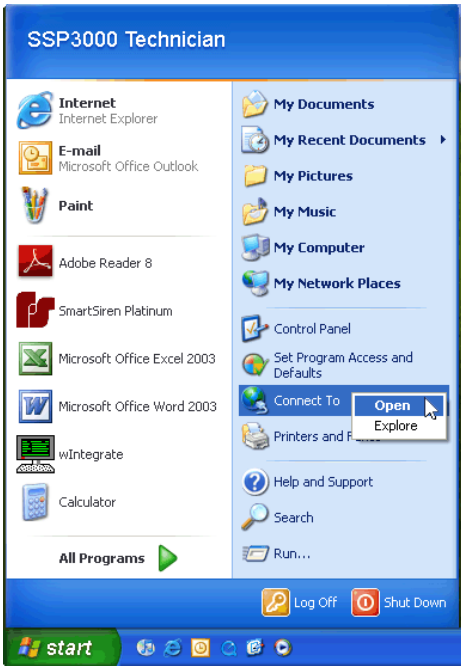
Troubleshooting Your IP Connection in Windows XP

If the Connection Status Pane displays the message "Not Connected to Smart Siren Platinum Control Pad" after you have properly connected the system and tried to establish an IP connection between the control pad and your computer:

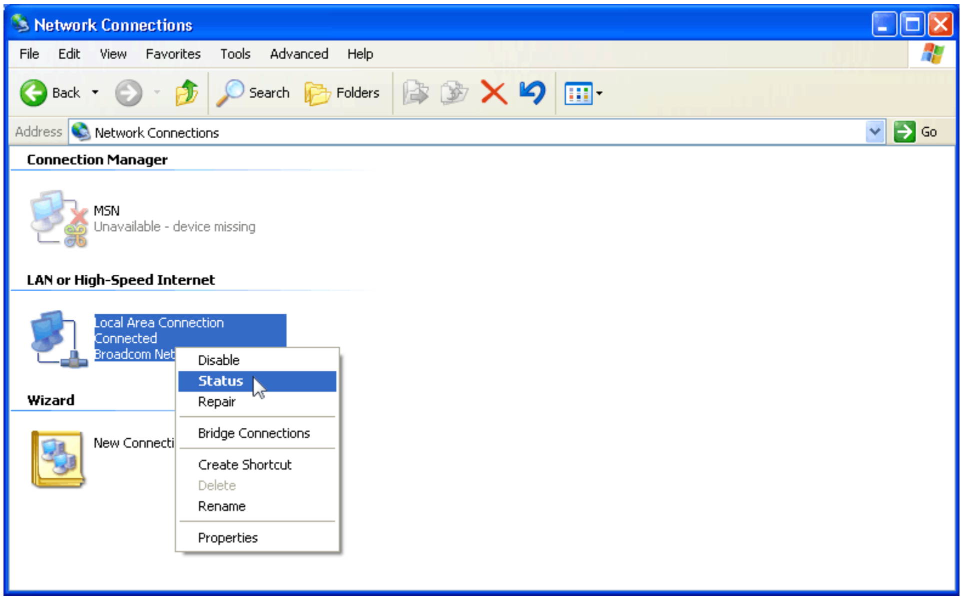
1. Check the IP connection between the control pad and your computer:

   a) To power the control pad, turn the ignition key to the accessories position. When powered on, the control pad automatically provides a IP address to the computer.

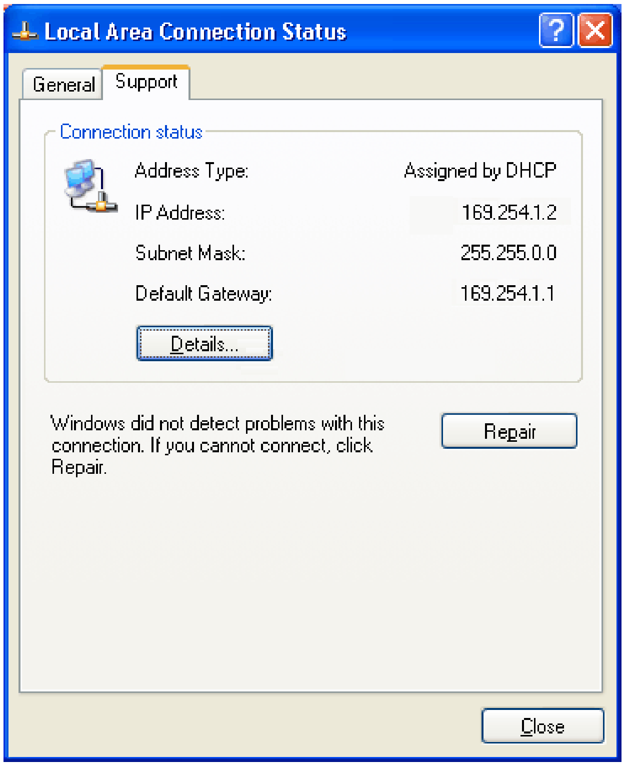
   b) In the **Start** menu click **Connect to** and select **Open**.


SSP3000 Technician
Internet
Internet Explorer
E-mail
Microsoft Office Outlook
Paint
Adobe Reader 8
SmartSiren Platinum
Microsoft Office Excel 2003
Microsoft Office Word 2003
wIntegrate
Calculator
All Programs
My Documents
My Recent Documents
My Pictures
My Music
My Computer
My Network Places
Control Panel
Set Program Access and Defaults
Connect To
Open
Explore
Printers and F...
Help and Support
Search
Run...
Log Off
Shut Down
start

c) Right-click **Local Area Connection** and select **Status**.


Network Connections
File
Edit
View
Favorites
Tools
Advanced
Help
Back
Search
Folders
Address
Network Connections
Go
Connection Manager
MSN
Unavailable - device missing
LAN or High-Speed Internet
Local Area Connection
Connected
Broadcom Net
Wizard
New Connecti
Disable
Status
Repair
Bridge Connections
Create Shortcut
Delete
Rename
Properties

d) Click the **Support** tab. The **IP Address**, **Subnet Mask**, and **Default Gateway** should match the information in the illustration below. Click **Close** to exit. If they do not match those in the illustration, see “Resetting the IP Address in Windows XP” on page 105.


Local Area Connection Status
General
Support
Connection status
Details...
Repair
Close

Address Type: Assigned by DHCP

IP Address: 169.254.1.2

Subnet Mask: 255.255.0.0

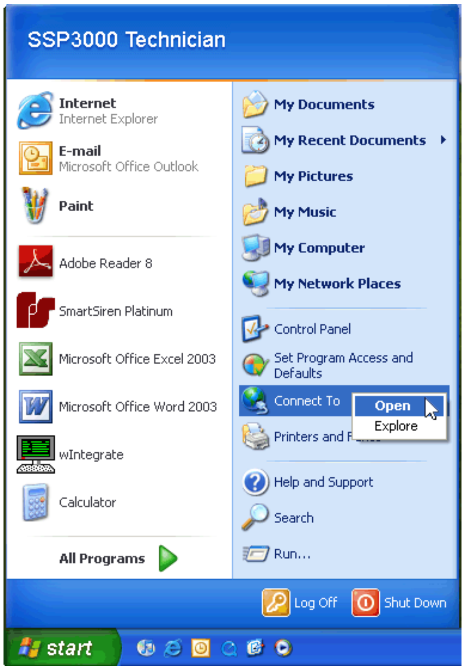
Default Gateway: 169.254.1.1

Windows did not detect problems with this connection. If you cannot connect, click Repair.

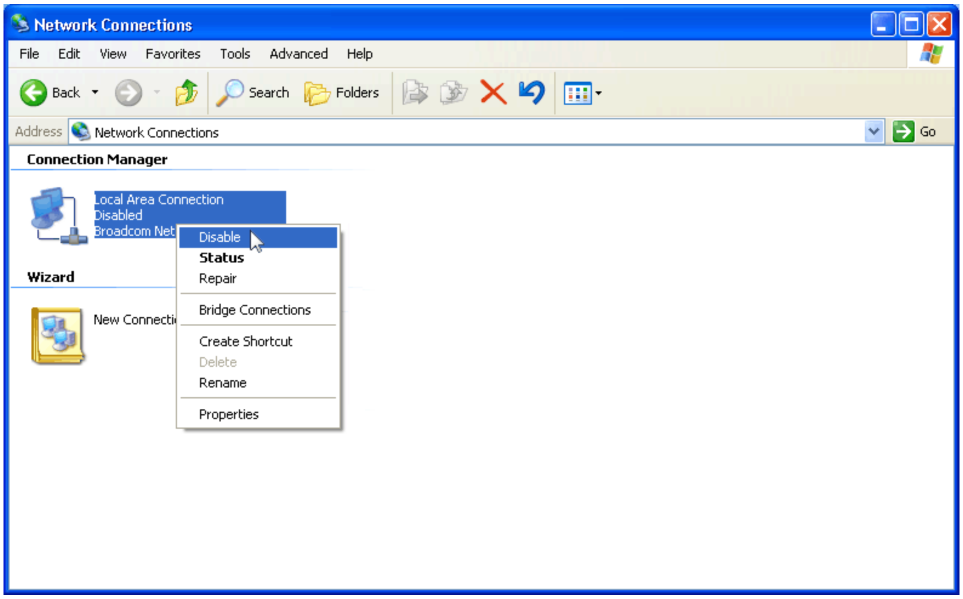
Resetting the IP Address in Windows XP

If the **IP Address**, **Subnet Mask**, and **Default Gateway** do not match the illustration in step 6 on page 107, reset the network connection by disabling and enabling it:

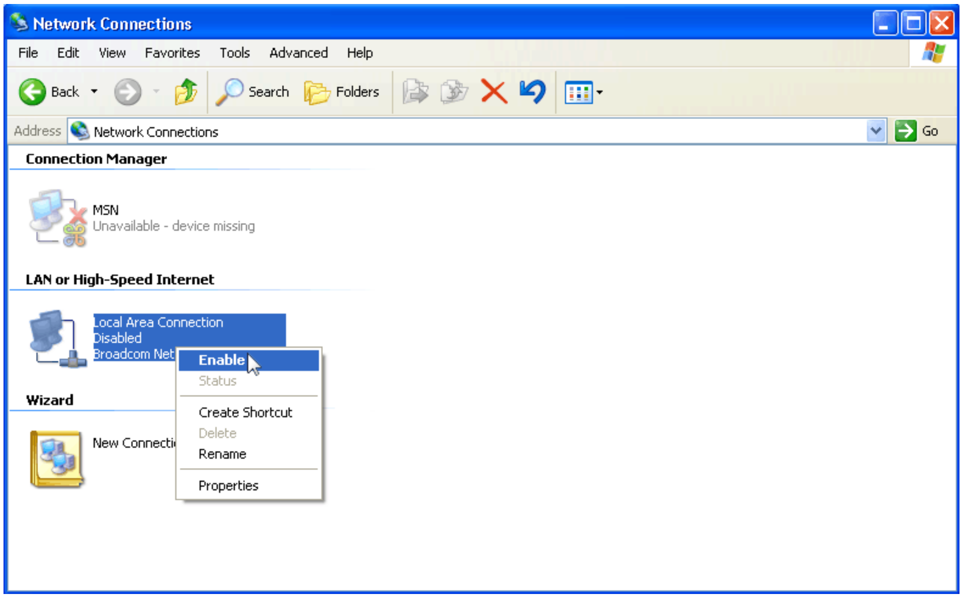
1. In the **Start** menu click **Connect to** and select **Open**.


SSP3000 Technician
Internet
Internet Explorer
E-mail
Microsoft Office Outlook
Paint
Adobe Reader 8
SmartSiren Platinum
Microsoft Office Excel 2003
Microsoft Office Word 2003
wIntegrate
Calculator
All Programs
My Documents
My Recent Documents
My Pictures
My Music
My Computer
My Network Places
Control Panel
Set Program Access and Defaults
Connect To
Open
Explore
Printers and F
Help and Support
Search
Run...
Log Off
Shut Down
start

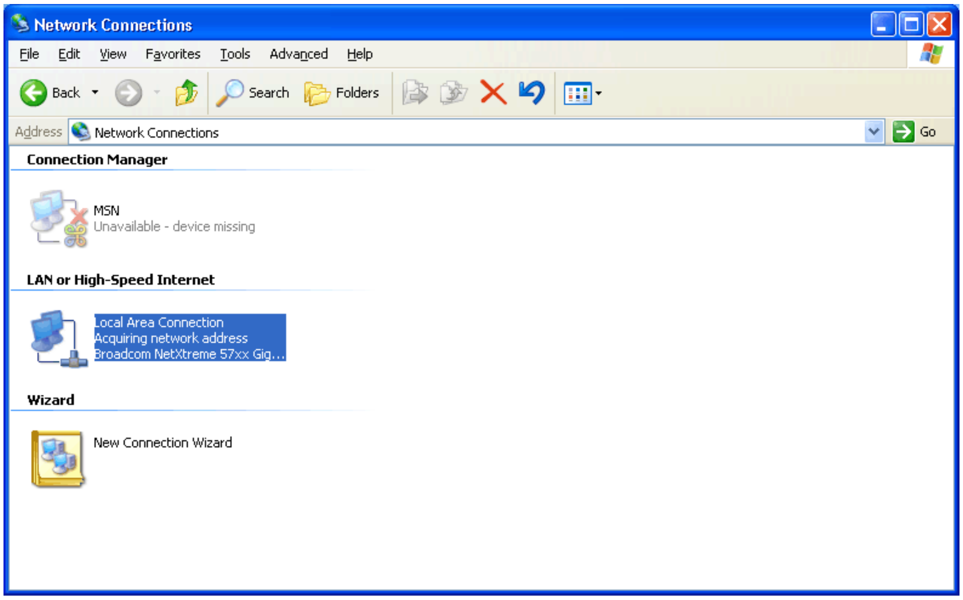
2. Under **LAN or High-Speed Internet**, right-click **Local Area Connection** and select **Disable**.


Network Connections
File
Edit
View
Favorites
Tools
Advanced
Help
Back
Search
Folders
Address
Network Connections
Go
Connection Manager
Local Area Connection
Disabled
Broadcom Net
Disable
Status
Repair
Bridge Connections
Create Shortcut
Delete
Rename
Properties
Wizard
New Connecti

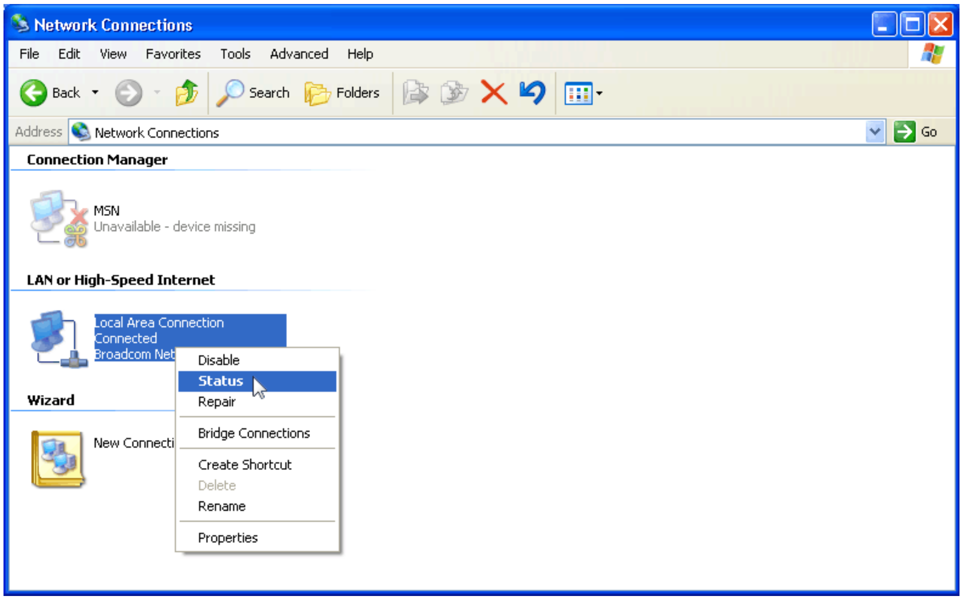
3. Wait for the connection to be disabled, then right-click **Local Area Connection** and select **Enable**.


Network Connections
File Edit View Favorites Tools Advanced Help
Back
Search
Folders
Address
Network Connections
Go
Connection Manager
MSN
Unavailable - device missing
LAN or High-Speed Internet
Local Area Connection
Disabled
Broadcom Net
Enable
Status
Create Shortcut
Delete
Rename
Properties
Wizard
New Connecti

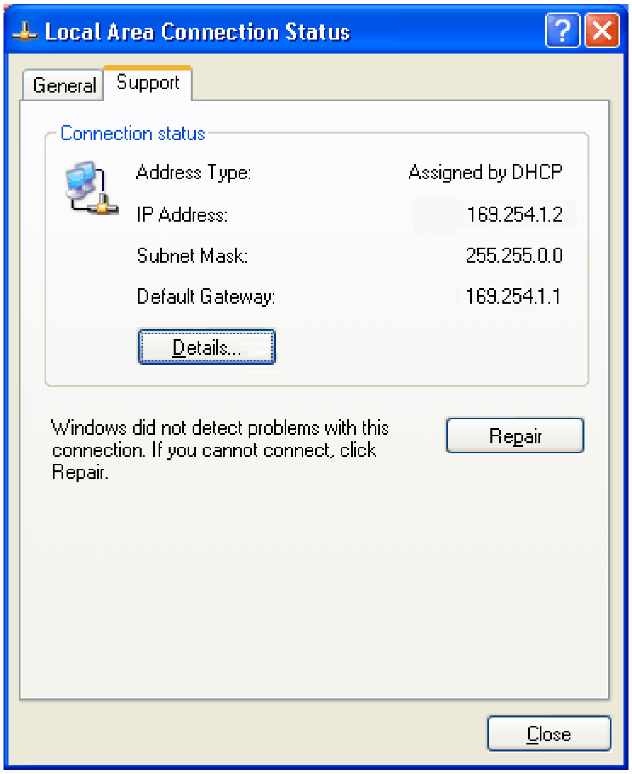
4. Wait for Windows XP to reconnect to the network.


Network Connections
File Edit View Favorites Tools Advanced Help
Back
Search
Folders
Address
Network Connections
Go
Connection Manager
MSN
Unavailable - device missing
LAN or High-Speed Internet
Local Area Connection
Acquiring network address
Broadcom NetXtreme 57xx Gig...
Wizard
New Connection Wizard

5. Right-click **Local Area Connection** again and select **Status**.


Network Connections
File Edit View Favorites Tools Advanced Help
Back
Search
Folders
Address
Network Connections
Go
Connection Manager
MSN
Unavailable - device missing
LAN or High-Speed Internet
Local Area Connection
Connected
Broadcom Net
Wizard
New Connecti
Disable
Status
Repair
Bridge Connections
Create Shortcut
Delete
Rename
Properties

6. The **IP Address**, **Subnet Mask**, and **Default Gateway** should match the information in the illustration below.


Local Area Connection Status
General
Support
Connection status
Details...
Repair
Close

Address Type: Assigned by DHCP

IP Address: 169.254.1.2

Subnet Mask: 255.255.0.0

Default Gateway: 169.254.1.1

Windows did not detect problems with this connection. If you cannot connect, click Repair.

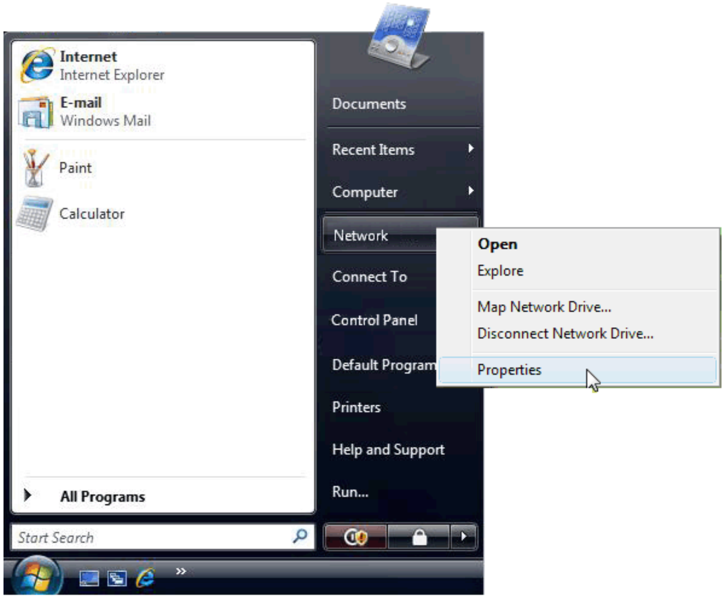
Troubleshooting Your IP Connection in Windows Vista/7

If the Connection Status Pane displays the message "Not Connected to Smart Siren Platinum Control Pad" after you have properly connected the system and tried to establish an IP connection between the control pad and your computer:

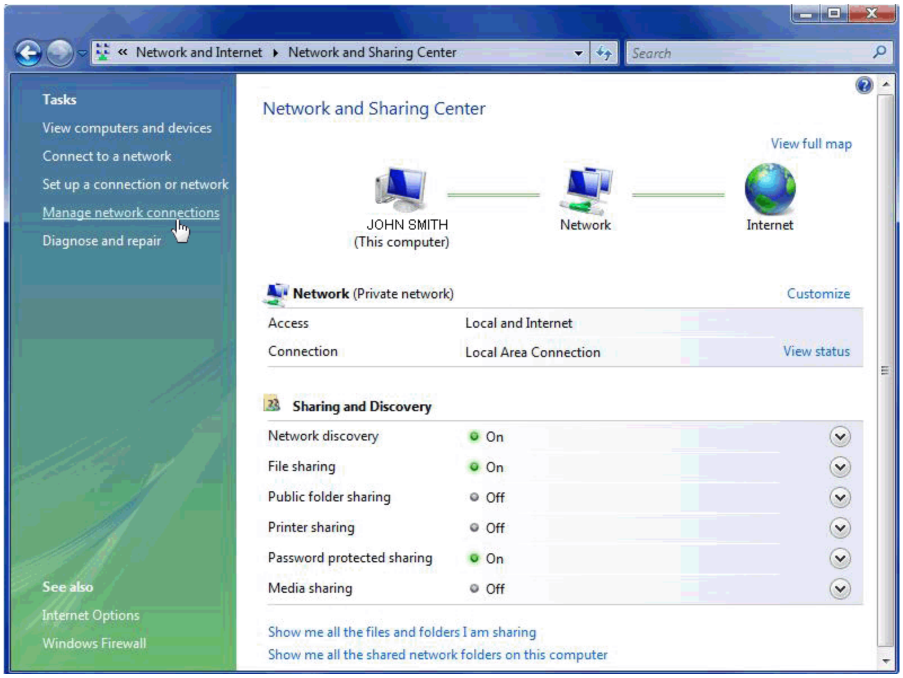
1. Set up and verify the IP connection between the control pad and your computer:

a) To power the control pad, turn the ignition key to the accessories position. When powered on, the control pad automatically provides a IP address to the computer.

b) In the **Start** menu, right-click **Network** and select **Properties**.


Internet
Internet Explorer
E-mail
Windows Mail
Paint
Calculator
All Programs
Start Search
Documents
Recent Items
Computer
Network
Connect To
Control Panel
Default Program
Printers
Help and Support
Run...
Open
Explore
Map Network Drive...
Disconnect Network Drive...
Properties

c) In the **Network and Sharing Center**, click the link **Manage Network Connections**.


« Network and Internet ▸ Network and Sharing Center
Search
Tasks
View computers and devices
Connect to a network
Set up a connection or network
Manage network connections
Diagnose and repair
See also
Internet Options
Windows Firewall
Network and Sharing Center
View full map
JOHN SMITH
(This computer)
Network
Internet
Customize
View status
Show me all the files and folders I am sharing
Show me all the shared network folders on this computer

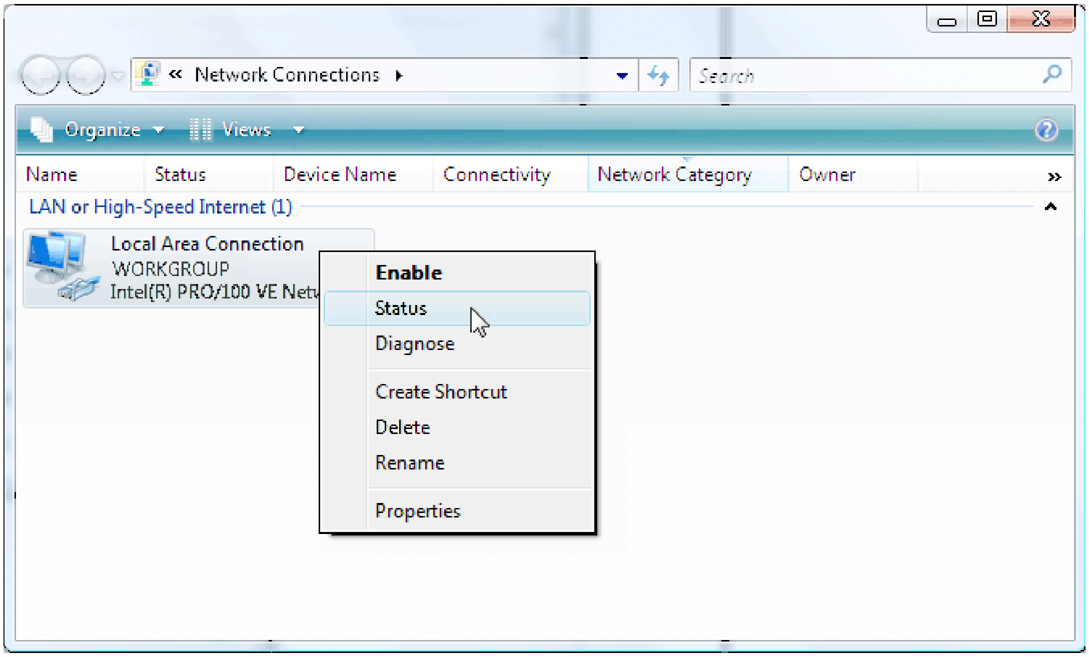
Network (Private network)

Access: Local and Internet
Connection: Local Area Connection

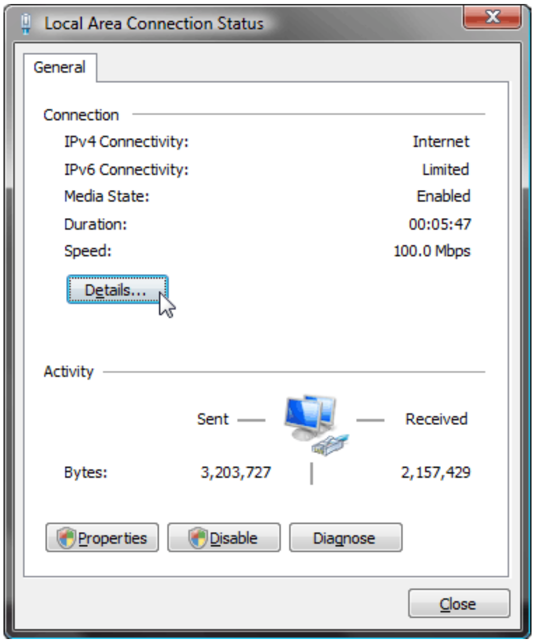
Sharing and Discovery

Network discovery: On
File sharing: On
Public folder sharing: Off
Printer sharing: Off
Password protected sharing: On
Media sharing: Off

d) To check your **IPv6 Address**, **IPv6 Subnet Mask**, and **IPv6 Default Gateway**, right-click your **Local Area Connection** and select **Status**.


« Network Connections ▸
Search
Organize ▾
Views ▾
Name
Status
Device Name
Connectivity
Network Category
Owner
»
LAN or High-Speed Internet (1)
Local Area Connection
WORKGROUP
Intel(R) PRO/100 VE Netw
Enable
Status
Diagnose
Create Shortcut
Delete
Rename
Properties

e) In the **Network Connection Status** window, click **Details**.


Local Area Connection Status
General
Connection

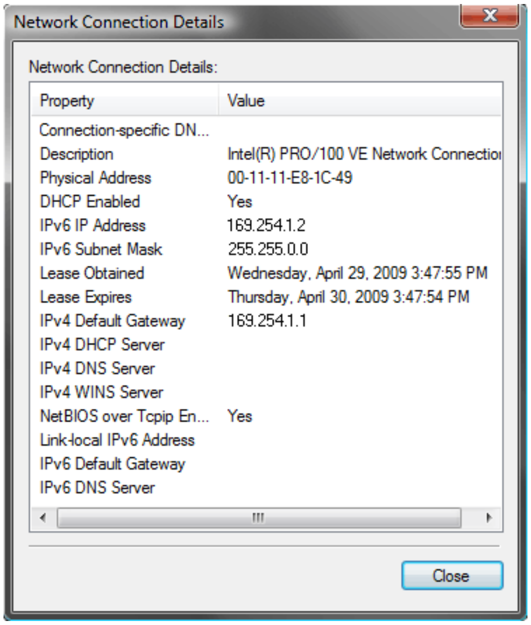
IPv4 Connectivity: Internet
IPv6 Connectivity: Limited
Media State: Enabled
Duration: 00:05:47
Speed: 100.0 Mbps

Details...
Activity
Sent
Received

Bytes: 3,203,727 | 2,157,429

Properties
Disable
Diagnose
Close

f) In the **Network Connection Details** the **IPv6 Address**, **IPv6 Subnet Mask**, and **IPv6 Default Gateway** should match the information in the illustration below. Click **Close** to exit. If they do not match those in the illustration, see "Resetting Your IP Address in Windows Vista/7" in the next section.



Network Connection Details
Close

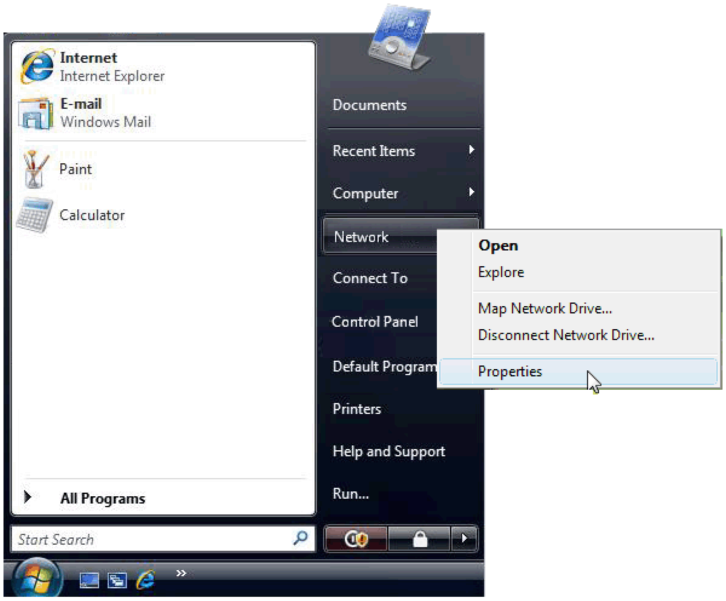
Network Connection Details:

Property	Value
Connection-specific DN...	
Description	Intel(R) PRO/100 VE Network Connectio
Physical Address	00-11-11-E8-1C-49
DHCP Enabled	Yes
IPv6 IP Address	169.254.1.2
IPv6 Subnet Mask	255.255.0.0
Lease Obtained	Wednesday, April 29, 2009 3:47:55 PM
Lease Expires	Thursday, April 30, 2009 3:47:54 PM
IPv4 Default Gateway	169.254.1.1
IPv4 DHCP Server	
IPv4 DNS Server	
IPv4 WINS Server	
NetBIOS over Tcpip En...	Yes
Link-local IPv6 Address	
IPv6 Default Gateway	
IPv6 DNS Server	

Resetting Your IP Address in Windows Vista/7

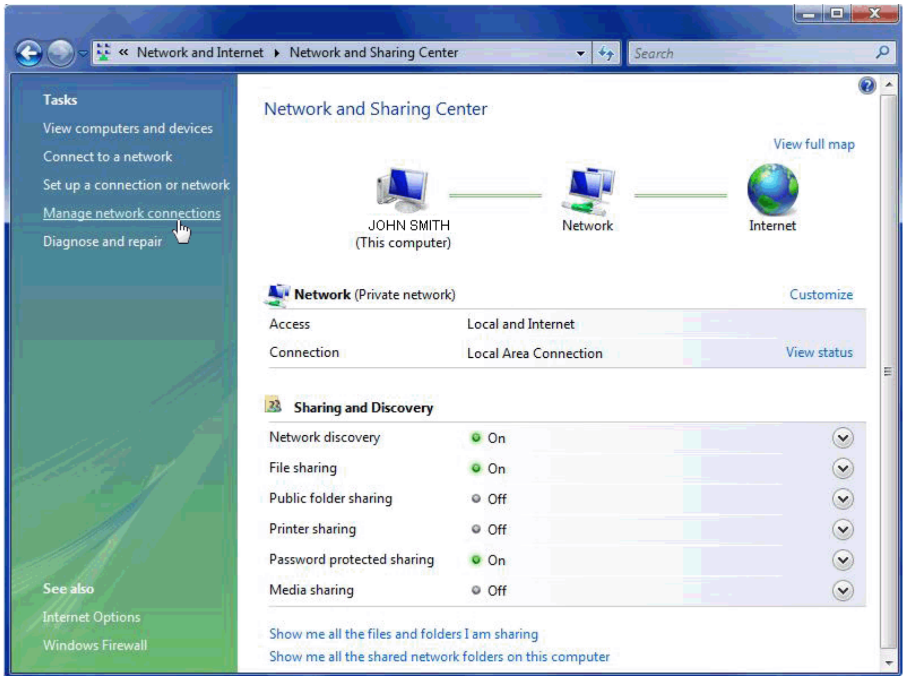
If the **IPv6 Address**, **IPv6 Subnet Mask**, and **IPv6 Default Gateway** do not match the illustration above, reset the network connection by disabling and enabling it.

1. In the **Start** menu, right-click **Network** and select **Properties**.



Internet
Internet Explorer
E-mail
Windows Mail
Paint
Calculator
All Programs
Start Search
Documents
Recent Items
Computer
Network
Connect To
Control Panel
Default Program
Printers
Help and Support
Run...
Open
Explore
Map Network Drive...
Disconnect Network Drive...
Properties

2. In the **Network and Sharing Center**, click the link **Manage Network Connections**.


« Network and Internet ▸ Network and Sharing Center
Search
Tasks
View computers and devices
Connect to a network
Set up a connection or network
Manage network connections
Diagnose and repair
See also
Internet Options
Windows Firewall
Network and Sharing Center
View full map
JOHN SMITH
(This computer)
Network
Internet
Customize
View status
Show me all the files and folders I am sharing
Show me all the shared network folders on this computer

Network (Private network)

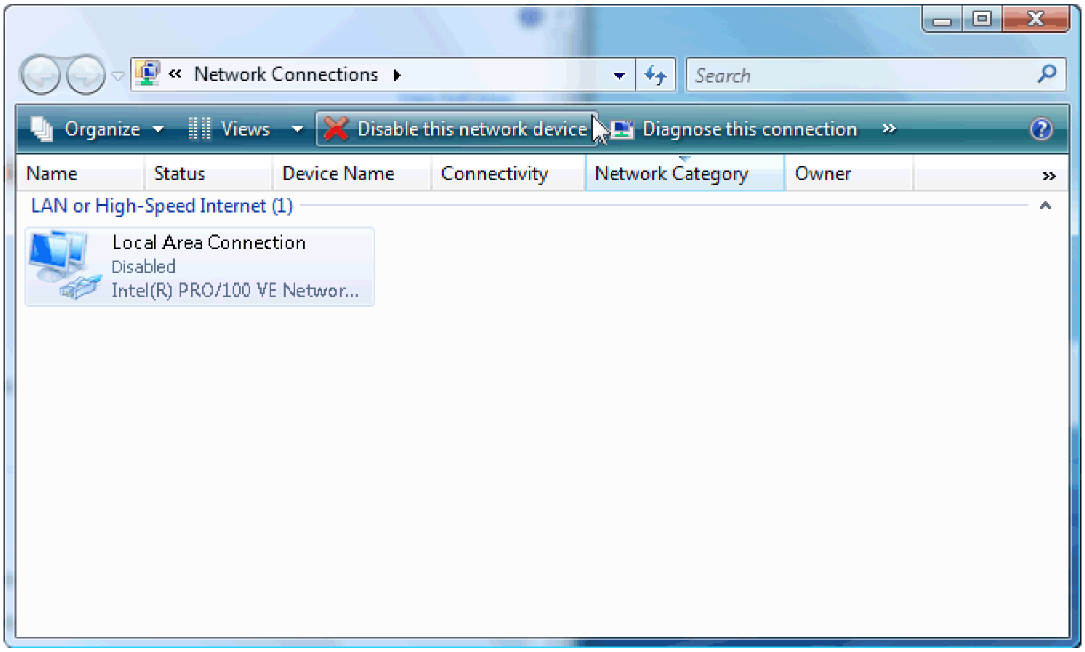
Access: Local and Internet

Connection: Local Area Connection

Sharing and Discovery

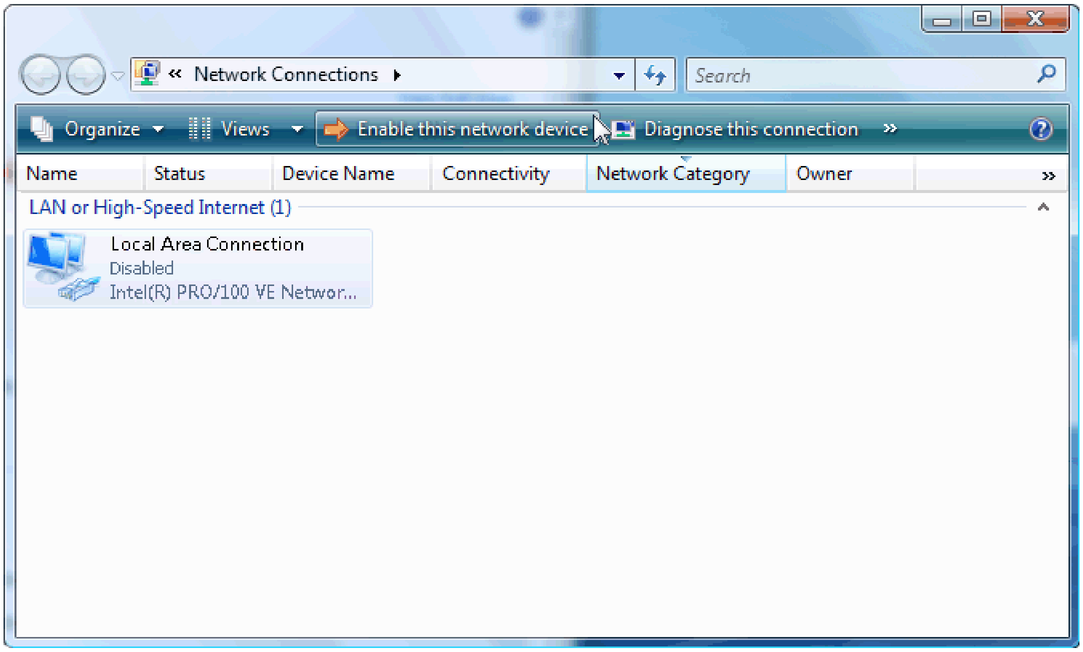
Network discovery	● On
File sharing	● On
Public folder sharing	○ Off
Printer sharing	○ Off
Password protected sharing	● On
Media sharing	○ Off

3. Select your L**ocal Area Connection** and click **Disable this network device**.

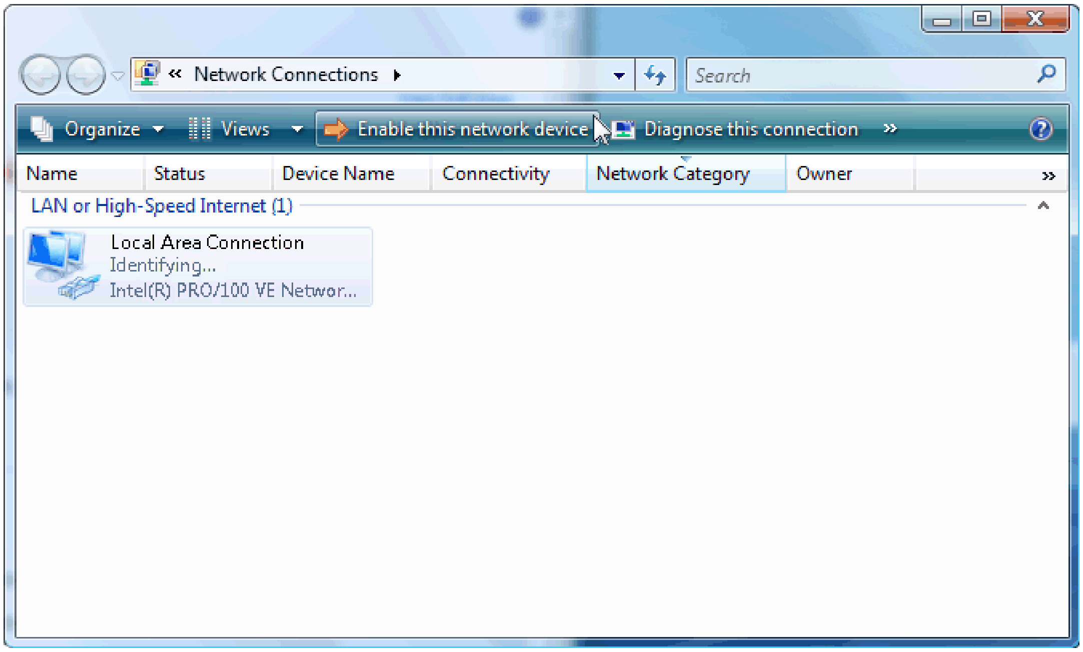

« Network Connections ▸
Search
Organize
Views
Disable this network device
Diagnose this connection
»
Name
Status
Device Name
Connectivity
Network Category
Owner
LAN or High-Speed Internet (1)

Local Area Connection
Disabled
Intel(R) PRO/100 VE Networ...

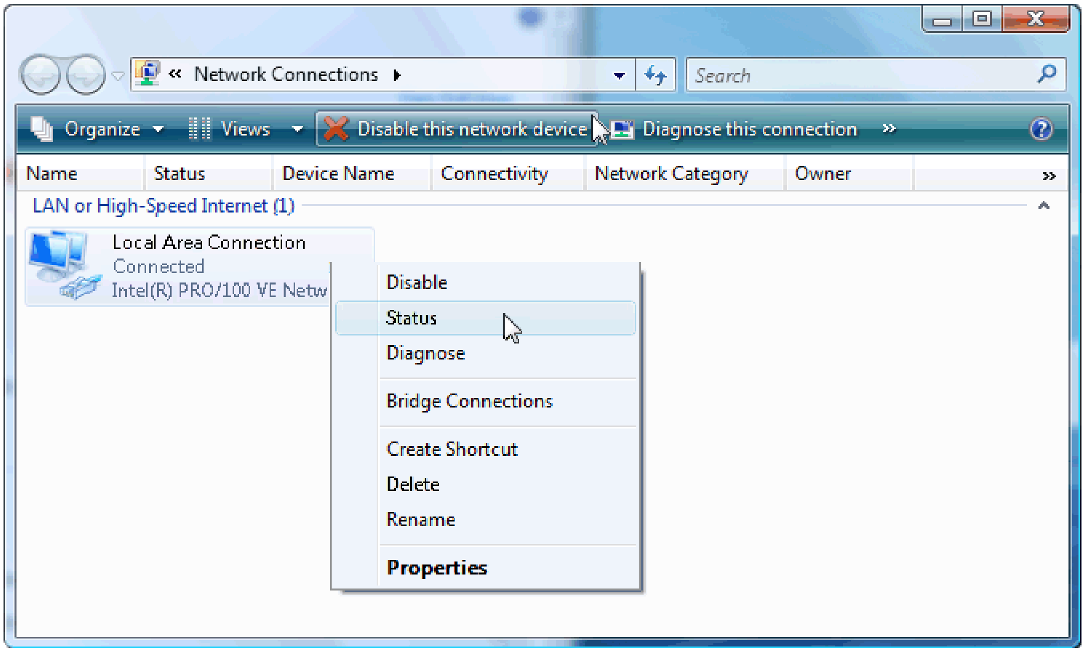
4. Wait for the connection to be disabled, then right-click L**ocal Area Connection** and click **Enable this network device**.


Network Connections
Search
Organize
Views
Enable this network device
Diagnose this connection
Name
Status
Device Name
Connectivity
Network Category
Owner
LAN or High-Speed Internet (1)
Local Area Connection
Disabled
Intel(R) PRO/100 VE Networ...

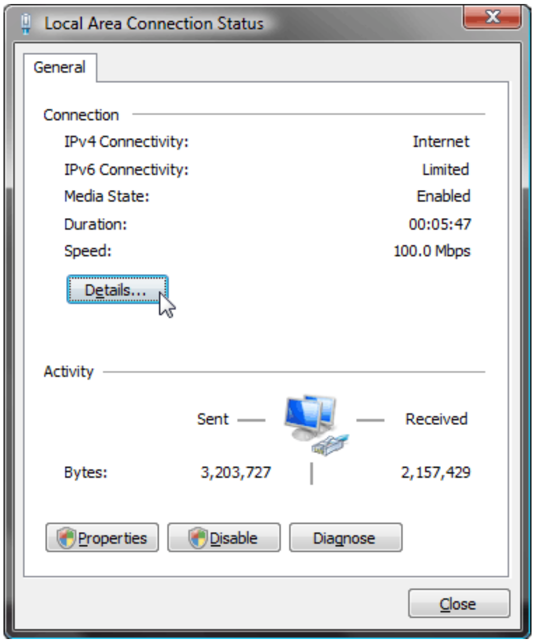
5. Wait for Windows Vista to reconnect to the network.


Network Connections
Search
Organize
Views
Enable this network device
Diagnose this connection
Name
Status
Device Name
Connectivity
Network Category
Owner
LAN or High-Speed Internet (1)
Local Area Connection
Identifying...
Intel(R) PRO/100 VE Networ...

6. To check your **IPv6 Address**, **IPv6 Subnet Mask**, and **IPv6 Default Gateway**, right-click **Local Area Connection** and select **Status**.


« Network Connections ▸
Search
Organize
Views
Disable this network device
Diagnose this connection
»
Name
Status
Device Name
Connectivity
Network Category
Owner
»
LAN or High-Speed Internet (1)
Local Area Connection
Connected
Intel(R) PRO/100 VE Netw
Disable
Status
Diagnose
Bridge Connections
Create Shortcut
Delete
Rename
Properties

7. In the **Network Connection Status** window, click **Details**.


Local Area Connection Status
General

Connection

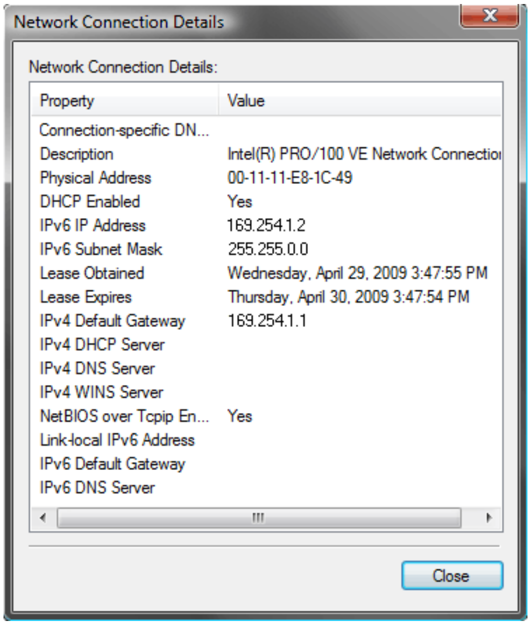
IPv4 Connectivity:	Internet
IPv6 Connectivity:	Limited
Media State:	Enabled
Duration:	00:05:47
Speed:	100.0 Mbps

Activity

	Sent	Received
Bytes:	3,203,727	2,157,429

Details...
Properties
Disable
Diagnose
Close

8. In the **Network Connection Details** the **IPv6 Address**, **IPv6 Subnet Mask**, and **IPv6 Default Gateway** should match the information in the illustration below.



Network Connection Details:

Property	Value
Connection-specific DN...	
Description	Intel(R) PRO/100 VE Network Connectio
Physical Address	00-11-11-E8-1C-49
DHCP Enabled	Yes
IPv6 IP Address	169.254.1.2
IPv6 Subnet Mask	255.255.0.0
Lease Obtained	Wednesday, April 29, 2009 3:47:55 PM
Lease Expires	Thursday, April 30, 2009 3:47:54 PM
IPv4 Default Gateway	169.254.1.1
IPv4 DHCP Server	
IPv4 DNS Server	
IPv4 WINS Server	
NetBIOS over Tcpip En...	Yes
Link-local IPv6 Address	
IPv6 Default Gateway	
IPv6 DNS Server	

The Default Configuration

When you launch the SmartSiren Platinum Configuration Software, it loads a ready-to-use default configuration file. The illustration below shows the buttons and the default settings assigned to them. You can use the settings as they are or modify them.

Signal Master Left, Right, Center Out Rear Lightbar 8-Head Discrete	**Warn** Step-Through Warning Patterns 1 to 4 Rear Lightbar 8-Head Discrete	SmartSiren® Platinum Series				**Button 14** Button Control: Push On/Off Lightbar: Dimming	**Button 15** Button Control: Push On/Off Rear Light Cutoff
Button 6 Button Control: Exclusive Siren: Standby	**Button 7** Button Control: Exclusive Siren: Radio	**Button 8** Button Control: Push On/Off Active Hi/Low 10 A Relay 9 Relay Function: Steady On Active Hi Open Off	**Button 9** Button Control: Exclusive Siren: Wail	**Button 10** Button Control: Exclusive Siren: Yelp	**Button 11** Button Control: Exclusive Siren: Priority	**Button 12** Button Control: Momentary Siren: Manual	**Button 13** Button Control: Momentary Siren: Air Horn
Slide Switch 1 Button Control: Momentary Lightbar Pattern 10 Front Light Cutoff Relay: Active Hi/Low 10 A Relay 1 Relay Function: Steady On Active Hi Open Off	**Slide Switch 2** Button Control: Momentary Lightbar Pattern 17 Horn Ring Transfer Relay: Active Hi/Low 10 A Relays 1–3 Relay Function: Steady On Active Hi Open Off	**Slide Switch 3** Button Control: Progressive Flash Take-down/Alley Lightbar Pattern 26 Siren Dependent Enabled Horn Ring Transfer Active Hi/Low 10 A Relays 1–5 Relay Function: Steady On Active High, Open Off	**Button 1** Button Control: Push On/Off Lightbar: Left Alley Active Hi/Low 10 A Relay 6 Relay Function: Steady On Active High, Open Off	**Button 2** Button Control: Push On/Off Lightbar: Takedowns Active Hi/Low 10 A Relay 7 Relay Function: Steady On Active High Open Off	**Button 3** Button Control: Push On/Off Lightbar: Right Alley Active Hi/Low 10 A Relay 8 Steady On Active High Open Off	**Button 4** Button Control: Timer: 8 Second Lightbar: Intersection Pattern 22	**Button 5** Button Control: Security Timer: 8 Seconds Active Hi/Low 10 A Relay 10: Relay Function: Steady On Active High Open Off

Input 1 Active Low Button Control: Momentary	**Input 2 Active Low** Button Control: Momentary	**Input 3 Active High** Button Control: Momentary	**Input 4 Active High** Button Control: Momentary		**Horn Ring**

<table>
<tr><td>SignalMaster</td><td>Warn</td><td colspan="4">SMARTSIREN®
PLATINUM SERIES
BUTTON LAYOUT WORKSHEET</td><td>Button 14</td><td>Button 15</td></tr>
<tr><td>Button 6</td><td>Button 7</td><td>Button 8*</td><td>Button 9</td><td>Button 10</td><td>Button 11</td><td>Button 12</td><td>Button 13</td></tr>
<tr><td>Slide Switch 1</td><td>Slide Switch 2</td><td>Slide Switch 3</td><td>Button 1</td><td>Button 2</td><td>Button 3</td><td>Button 4</td><td>Button 5</td></tr>
</table>

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